Financing Access to Early Education for Children Age Four and Below: Concepts and Costs

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In this paper I consider alternative approaches to defining universal access to early learning experiences, and consider the costs of alternative ways to make such access affordable to low, moderate and middle income families. The elements of what constitutes high quality early care and education (ECE) are specified, as is the methodology for moving from unit costs of providing such services to the budgetary costs of an entire high quality system. I argue that the most cost-effective policy is to make high quality ECE available for all children birth through five. A financing approach combining a subsidy to providers that is not related to the income of particular children, with an income-related voucher for parents can make early learning experiences affordable for all families at a relatively modest national commitment, with an investment equivalent to about 6 to 13 percent of current public elementary and secondary education spending. The wide range of costs reflects uncertainty in the research literature to guide many policy choices, suggesting the need for state experimentation and variation.

Introduction

It is becoming well-recognized that the quality of non-parental care experiences in the years before kindergarten affect children's outcomes in school and later life (Barnett 1995, 2002; Bowman, Donovan, and Burns 2001; Gomby et.al, 1995; Peisner-Feinberg, Burchinal, Clifford et. al. 1999; Shonkoff and Phillips, 2002). In addition to the evidence on the impact of early care across the birth through five period, there is beginning to be evidence that large scale pre-kindergarten programs improve performance, at least for some groups of children (Gormley and Phillips, 2003; Henry, 2003a). This has led to a recognition that what has been treated from a public policy perspective as a work-welfare issue must also be treated as an educational issue, and receive appropriate public investment (Blau, 2001; Adams & Rohacek, 2002; Vandell and Wolfe 2000). For the purposes of this paper, the impact of high quality early learning experiences on children's later achievement will be taken as a given, and the focus will be not on whether to invest in assuring access to high quality early learning, but what form the investment should take and how much it will cost.

The national financing estimates presented in this paper represent an extrapolation from analysis that the Human Services Policy Center has conducted over the last several years in the four states that participated in the *Universal Financing of Early Care and Education for America's Children project*.[1] For this paper I have produced additional estimates focusing particularly on four-year old children, and basing estimates on national data.

A. Clarifying concepts

The central question before us is how to finance "universal" preschool for all 4 year old children in the U.S.. We must start with a brief discussion of what 'universal' means. To me, it means universal financial access – that any parent who desires a high quality early learning experience for their child will be able to afford such an experience. Universal is sometimes confounded with "uniform," but I am treating them as different. Under a universal access system, different children could experience early learning in many different settings, with different programmatic approaches, and different parents could pay different amounts. There are economic, political, educational and values aspects to such a definition of universal. Economically, it implies a lower public cost, if not all children attend for free. Politically, it implies that families of all income groups can potentially benefit directly. Educationally, it recognizes that deficiencies in early learning affect middle as well as low income groups (Barnett, 2004), and that both low and middle income children could benefit from better early learning opportunities. It also implies that early education will be conducted in economically integrated settings, rather than among segregated groups of low income children. In value terms, it recognizes that 'high quality early learning' for young children can mean different things, and that there are different valid approaches to delivering it. For young children, the essence of quality is in the relationship between the caregiver/teacher and the child: whether that

[1] Richard N. Brandon and Sharon Lynn Kagan, Co-Directors. A description of the project and public summary reports for the four states are posted on the HSPC website, www.hspc.org. I am indebted to my HSPC colleagues, Drs. Erin J. Maher, Jutta M. Joesch and Guanghui Li for their contributions to the analysis in that project; Drs. Maher and Li performed some additional analyses that are reflected in this paper.

relationship occurs in a home, community-based center or school environment is less important.

A second central question is whether a universal access policy should build on the current market-based approach to early care and education, or attempt to replace the market with a set of publicly provided services, on the model of Head Start or public school kindergarten. I argue that the concept of the early learning/developmental experience is the important point of focus, and that it can potentially be achieved under a variety of auspices. The key issue for this paper regarding financing is what the different potential approaches imply for costs. In the real world, the distinctions between 'preschool' and 'child care' are breaking down. Most states have taken a mixed approach to pre-K (Barnett et.al., 2003), allowing or requiring that the program be implemented partially by public schools, partially by independent centers meeting state quality standards and funded under contract. In the world of Head Start, many children are served by a combination of half-day, school-year services labeled 'Head Start,' and wrap-around services for other hours or days labeled 'child care.' In some cases there are different providers meeting different standards; in other cases, the services are by the same providers blending different sources of funding. Despite such blending, the distinctions among program auspices have important implications for the operation of the system, including how quality standards are established and implemented, the degree of parental choice and public vs. private costs. A market approach provides greater flexibility and choice, while a public provision model may make enforcement of quality standards more straightforward. Since a school-based public provision approach usually entails preK teachers meeting elementary school teacher certification requirements and receiving equivalent pay, it is more expensive. The evidence is out regarding whether that approach to standards and costs actually produces a greater quality learning experience (Henry, 2003b). We will therefore consider the costs and financing requirements under higher and lower teacher qualification and compensation standards.

It is important to note that for the purposes of this paper, I have focused primarily on costs for four-year-old children. However, I believe that it is important for several

reasons to develop a unified financing system for children age birth through five (B-5). First, about one third of children B-5 have a sibling in the same age group. Developing separate systems for younger and older components of this age group may well lead to siblings served in different locations. In addition to the challenges of parents having to relate to two different early education settings, the ease of transition provided by having an older sibling at the provider could be lost, increasing the stress on children. Second, children's developmental trajectories vary substantially at these ages, so creating hard boundaries between the standards and nature of ECE for 3 versus 4 year olds is likely to lead to sub-optimal care for many children. Finally, as reported by Witte (2002), there is currently a practice by which centers often cross-subsidize the costs of ECE. Parents of preschool age children charged somewhat above cost in order to charge parents of infants and toddlers below the actual costs, which are burdensome due to the much lower child:adult ratios required. If preschoolers were served in a separately financed system, the potential for cross-subsidy is likely to be lost, making high quality ECE unaffordable for children of infants and toddlers. Ultimately, we must ask what we are trying to achieve through universal pre-K. If we are trying to assure that all our children meet their full learning potential, and we accept the research indicating that this is a process beginning at birth, then we must design our policies to assure access to high quality early learning experiences at all ages, not just from age 4. In the final section, therefore, I will compare the costs of providing universal access for children B-5 to the cost of serving only four-year olds.

There are several major program design issues affecting costs:

- What are elements of high quality ECE: staffing, quality assurance; ancillary services;
- How many hours a day and days a year are early education services provided;
- What share of the population is eligible to participate and financially assisted, particularly which age and income groups;
- Are parents asked to share the financial burden directly through co-payments or fees, or indirectly through taxes.

B. The elements of high quality ECE

There are usually considered to be two dimensions of quality in ECE: 'structural variables,' which delineate the ratio of children to staff, group size, learning materials and the physical environment; and 'process variables,' which reflect the nature of interaction between caregivers and children. While it is the relationship between caregivers and children which have the greatest impact on child development (Shonkoff and Phillips, 2002), structural variables have been shown to correlate with the quality of interaction. In particular, the general education level of the caregiver, her specific training in early childhood development knowledge and skills, and compensation levels have been documented as important correlates (Burchinal, Howes, & Kontos 2002), are more sensitive to the children in their care, and spend more time teaching (e.g., Clarke-Stewart, Gruber, & Fitzgerald 1994; Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney 2002; Kontos, Howes, & Galinsky 1996; NICHD Early Child Care Research Network 1996, 2000). These structural elements correlate with process quality and are the major determinants of the unit cost of direct provision of ECE. They therefore form the first level of policy specifications for our cost simulations. It has also been argued that for these inputs to be fully effective, they must be accompanied by systemic elements of regulation and governance structures (Kagan & Cohen, 1997). We have therefore also specified those elements and estimated their contribution to costs.

For the financing simulations presented here, we estimated the hourly costs of ECE consistent with the recommendations from a series of expert working groups (the process and recommendations are described in Kagan, Brandon, Ripple, Maher & Joesch, 2002). The major cost-drivers of these recommendations are that for four-year old children in center-type care:

- 59% of staff should have BA or MA degrees; 25% should have AA's; center directors should have advanced degrees.
- BA-level starting teachers should receive compensation equivalent to a starting BA-level elementary school teacher in the same area; staff salaries should vary in a lattice reflecting job responsibilities, qualifications and experience or performance;

- there should be low barriers to employment based on formal education in order to maintain cultural diversity, but less-qualified staff should be required to improve their skills as a condition of employment.
- teachers and assistants should be on a career lattice, moving up in responsibility and compensation as the go from high school, to AA to BA degrees.
- allowances for professional development should be subsidized for all staff, allowing them obtain college degrees and move up the lattice. Costs of 45 hours of release time to participate in professional development are built into the estimates;
- child:adult ratios (including directors) in centers should average 8.3:1.

For children in formal family child care, the recommendations are that:

- 19 percent of providers should have BA level degrees; 19% should have AA's;
- compensation would be the same as for center-based teachers of comparable degrees and experience, but the average compensation would be lower since the average qualification level would be lower;
- ratios of 6 children per adult. It should be noted that this is higher than the current average ratio of 3.5 (HSPC, 2004), under the observation that better qualified providers can care effectively for more children;
- the same professional development allotment as for center-based teachers, including release time;
- an allowance of 25 percent over compensation for non-personnel expenses, such as insurance, food, supplies and materials, and home maintenance would be included in costs and fees.

How many hours a day, days a year?

A critical issue in the pre-K context is how many hours per day and days per year a high quality early learning setting should be available. There are two disparate perspectives on this issue. One, which might be called the 'schooling' perspective, treats pre-K as a quantum of enrichment, designed to convey certain skills and knowledge, implying that there is some minimum number of hours and days necessary to convey them. This has led to many programs being offered for a half day during the 180 days of the school year,

with 'wrap-around child care services' making up the remaining hours of non-parental care. Proponents of this approach often consider 'pre-K' to be a qualitatively distinct service from high quality 'child care,' a service that can be offered for a limited amount of time without regard to the remainder of the day and year. An alternative perspective, which might be called the 'developmental' or 'relationship' perspective, is based on the notion that young children's social, emotional, cognitive and self-regulatory development are fostered or inhibited by positive or negative relationships with the adults who care for them (Shonkoff and Phillips, 2002). As John Gottman puts it, "relationships are built one interaction at a time." In this perspective, the factors affecting quality – appropriate ratios, staff qualifications and skills training – must be considered at all times children are in care. There is some evidence emerging that full day kindergarten programs have significantly greater effect on achievement than part-day programs (Walston and West, 2004; Elicker & Mathur, 1997). These findings may be relevant to the discussion on early education, and whether a part-day, part-year program can achieve child development goals. Proponents of the developmental approach consider the interaction of the caregiver and child the central factor, and do not see 'pre-K' as a different service more likely to enhance children's cognitive, social and emotional development.

Consistent with this developmental perspective, the financing estimates in this paper were developed on the basis of a unitary set of policies covering all hours of non-parental care, and a wide range of settings.[2] However, this does not imply that all children would be in full-time, full-year center or classroom care -- an assumption which often produces excessive cost estimates. We estimate from parent survey data that for four year olds, the median hours per week of non-parental care is 20 hours for those whose primary care is in centers or preschools (65% of all non-parental hours), 35 hours for those whose primary arrangement is formal family child care (13% of all hours), and 40 hours for those primarily using paid family, friend or neighbor care (9% of all hours) (HSPC, 2004). An accurate estimate of the costs of high quality early learning must therefore build on the actual numbers of hours currently used, adjusted to reflect likely increases if

[2] Our policy simulation approach, however, allows the specification of different components, and some of our partner states have developed packages that differentiate between part-day pre-K and wrap-around services.

higher quality ECE were available at a lower net price. Under those circumstances, some parents would shift from part to full time care; many others would still prefer to work part time or arrange their shifts so that children were only in non-parental care for part of the day.

System level costs amortized in fees

Quality promotion and assurance costs for the system, including improved regulation, accreditation assistance and local monitoring and governance entities, are included in the hourly costs presented in this section. Such costs constitute about 10-20 percent of the total hourly costs of high quality ECE, with the difference depending on the level of salaries specified. Most of these costs are for professional development, which are necessary to sustain quality in a system where there are a range of teacher qualifications and an expectation that individual teachers will improve their skills and increase their compensation over time. As with other social benefit systems (Brandon, Kagan & Joesch, 2000), embedding such quality assurance within the hourly benefit costs could allow them to keep pace with benefit expenditures and remain effective as expanded financing places growing administrative burdens. Licensing fees or other recapture mechanisms could re-allocate payments made to providers to system level funding pools.

State variations in parameters of high quality ECE

In the universal financing project, we worked with policy teams in four diverse states. We found that they agreed with the concepts of a career lattice linking qualifications, responsibility and compensation, and mostly agreed regarding desirable child:adult ratios. However, we found that in two areas with major cost implications, the research literature does not give clear guidance and states reached widely varying recommendations, reflecting local conditions and economic factors.

First, the research literature is controversial regarding the relative impact of holding a BA level degree as opposed to holding an AA and receiving specific ECE education and training. Some experts have concluded that a BA level degree is critical (Bowman et.al., 2001; Whitebook, 2003). In a thorough review of the research Zaslow, Tout, Maxwell

& Clifford (2004 forthcoming), concluded that the research "does not provide a detailed picture of thresholds" of teacher education level required for effective early education. In addition to entailing a higher level of compensation, building an ECE teacher corps on BA level staff would require a higher education system willing and able to prepare many more BA level teachers with an early childhood specialization. If a greater percentage of the general population holds a BA, then recruiting large numbers of BA level ECE teachers is more feasible. We found that the lower income states we worked with had a lower percent of BA-educated adults in the population and had higher education systems less able to take on preparing large numbers of BA teachers. The policy teams in low income states therefore tended to build their systems around a greater proportion of AA-level teachers, to be prepared by community colleges. The higher income states opted for higher percentages of BA level teachers (50-56% vs. 33-35%), knowing that they could build on greater capacity in the general education level of the population and their higher education systems.

Cultural diversity is also an important policy consideration when considering staff mix. A feature of the public school system that we do not wish to emulate is a disparity between the backgrounds of teachers and students. ECE currently has a rough correspondence between the cultural background of children and staff. Setting high formal education qualification for all staff would make it more difficult to maintain this. Both the national expert and state teams considered it important to maintain entry-level positions with high school degrees, accompanied by opportunities for ongoing professional development, to assure that non-white teachers would not be pushed out of a more professionalized ECE teacher market. If the findings from elementary and secondary education research that teachers have lower expectations for children of color, and that these expectations negatively affect student achievement (Ferguson, 1998), applies to early education, then achieving more highly educated teachers at the expense of cultural diversity could reduce the expected gains.

A second issue with great room for variation is the level of compensation appropriate for each degree of qualification. The expert working group recommendation for linking BA

level teacher salaries between ECE and elementary schools was based on a concept of pay equity for individuals of similar qualifications and duties. However, from a labor market perspective, it is possible to recruit and retain BA level staff for considerably lower salaries than those of kindergarten or elementary school teachers, which average about $28-29 per hour nationally. Child and family social workers average about $16 an hour, and medical technologists about $20 (US BLS, OES – 2003). While the research literature indicates better quality of child interaction and better retention rates are associated with higher pay (Whitebook, 2001), these findings are within the range of current child care center staff up to about $10-12/hour (at relatively high quality, high paid centers in California), and do not give guidance as to whether there would be differential effects among BA-level teachers with salaries averaging $16, $20 or $29 per hour nationwide. It is not clear whether early education personnel would be competing within the K-12 labor market, or the human services labor market: the formulation of policy around a development or schooling model, and the organizational arrangements adopted by state and local agencies, could affect how the labor market dynamics play out. It is also unclear whether it would be possible to attract more competent staff by instituting greater differentiation among salary levels than is normally found in 'compressed' teacher salary matrices. Such differentiation might be more effective than higher overall salary scales. Large scale experimentation accompanied by labor market analysis will be required to resolve this issue. Salary ranges as great as two to one obviously have major cost implications, which we shall discuss in detail below.

We note that the differences in state contexts, and the great uncertainty in the research literature, have important implications for the degree to which it would be appropriate to adopt uniform federal standards as opposed to promoting state experimentation.

C. The costs of high quality ECE: hourly vs. budgetary estimates

There are two ways to look at the costs of high quality ECE, each important for a different purpose. To compare the impact of such varying policy specifications as staff compensation, it is most useful to break costs down to their smallest unit, the hourly cost.

This also allows a direct comparison to current state reimbursement rates and to current prices charged in the private market (note that costs do not equal prices). However, the hourly costs of ECE do not directly translate to the budgetary costs of supporting access to that care. First, we must specify what policies will be adopted to help families at various income levels afford high quality ECE. Second, we must consider the likely market effects of changing the prices experienced by parents. If quality is increased in a way that raises cost, but policies do not offset that cost with subsidies, then parents will experience price increases and are likely to decrease their utilization, particularly of the more formal, more expensive modes of care. If the effect of subsidies is to reduce the net price to parents, then demand is likely to increase. The policy simulation model we built at HSPC both allows the specification of many different combinations of high quality ECE cost elements and subsidy policy, and estimates the likely demand effects, using the coefficients estimated by Blau and Hagy (1998). Finally, we adjust the hourly costs to annual programmatic costs, considering the utilization of ECE through the course of the year and the costs of administration and missed hours required for a program to offer actual program contact hours.

1. Hourly costs of high quality ECE

Here, I report on our findings about hourly costs; the next sections discuss the effects of higher hourly costs and alternative subsidy policies on budgetary costs.

Table 1 below shows the hourly costs of high quality early learning in a center-type setting for 4-year old children, in accordance with the policies listed above, with two alternative salary standards. In each case, salaries are based on a career lattice, with salaries varying by job responsibility, qualification level and years of experience. Each lattice builds a set of salaries, where each is a multiple of the salary of a starting BA level teacher. The starting BA salary is linked alternatively to average starting salaries of social workers or elementary school teachers. The rows below show the hourly cost estimates averaged for higher and lower income states, incorporating some modifications of the expert recommendations about specific policy inputs. The state averages also vary by similar higher and lower salary standards, using the salary levels of social workers or

elementary teachers specific to their state. We see that nationally, with all other factors held constant, there would be a 36 percent difference in hourly costs based on the difference of elementary teacher versus social worker salary standards. In our partner states, where the other policies also varied somewhat, the difference related to salary standards was about 20 percent. The cost differences between lower and higher income states, which have correspondingly different average wage levels, were 30-35 percent. In addition to the range for policy experimentation within this range of salary standards, we see the importance of setting cost or reimbursement standards on a state-specific basis.

Table 1:

Hourly Costs of High Quality ECE in Centers for Children Age 4 (3-5)
(Includes direct service and quality promotion; not administrative costs)

	Lower Salary Standards (C&F Social Worker, Starting = $11.77/hour)	Higher Salary Standards (Elementary Teacher; Starting = $18.30)	Ratio of Higher Salary Cost to Lower Salary Cost
US (expert recs)	3.50	4.77	1.36
Higher Income States	4.11	4.84	1.18
Lower Income States	3.06	3.74	1.22

How do high quality ECE costs compare to current rates?

Unfortunately, we are aware of no reliable source of data on the average national hourly costs of either pre-K programs or child care subsidies. In the states where we have conducted our modeling, we have compared the estimated hourly costs to average state reimbursement rates paid on behalf of low income children, and to the 75th percentile market rates paid by upper-middle-income families.[3] The increases tend to be higher in

[3] It should be noted that 'costs' computed here are not strictly comparable to rates or prices charged in the marketplace, since as shown by Helburne et.al. (1995), market prices often reflect hidden subsidies. Our approach is to estimate actual costs, make subsidies explicit, and compute parental prices net of explicit subsidies.

the lower income states, which have lower current prices. Looking first at the costs with lower salary standards, we found that they would be between 30 and 50 percent higher than current state reimbursement rates for center care. They would be between 5 and 50 percent higher than 75th percentile market rates. Setting market and reimbursement rates to reflect these higher costs would thus represent a substantial increase in most states. The increases would of course be greater if the higher salary standards were used, ranging from 25 to 85 percent above either state reimbursement rates or 75th percentile market rates. While these costs would be substantially greater than current child care prices, they are substantially less than highly enriched, comprehensive service programs. It should be noted that since we are considering the costs of early education for all children, we have not included services that could be important for low income families, such as transportation, health and nutrition and family support, some of which are available through other programs (e.g., Medicaid, CHIP, food stamps, WIC).

What percent of children should be eligible to participate in funded early education?
Can parents afford these costs of high quality ECE? There is no clear specification of 'affordability' in the literature on the economics of child care. Helburn and Bergman (2002) have proposed excluding all income up to twice the federal poverty level (often consider the amount necessary to support a family), then charging parents co-payments up to 20 percent of income above that amount. Such an approach assumes no tradeoffs for low and moderate income families between ECE and other beneficial goods and services. A conventional standard, incorporated in federal CCDF guidelines, is that net parent payments should not exceed 10 percent of family income. While the convention is not clear, we think it is reasonable to apply the 10 percent standard on a family basis, so that the cost per child would not exceed 5-6 percent of family income. It is also not clear what quantity of ECE utilization should be affordable. A handy gauge is to consider affordability as ability to pay for full time, full year ECE during the normal work week if desired. Treating that as about 2080 hours a year (too little for some families with long yours of work and travel time, more than enough for others), then the costs of the expert recommendations are about 20-25 percent of the US average after-tax income, for each child. For the one third of families with more than one child below age 5, total family

costs could exceed 40-50 percent of income if both children utilized ECE. As expected, the estimated cost is not affordable for an average family. Indeed, only families with after-tax income in excess of $66,000 (about 32 percent of children) could afford the lower salary range cost for one child; after tax income exceeding $90,000 (about 10 percent of children) would be required to afford high quality ECE under the higher salary cost recommendations for one child without assistance. The maximum value of the federal child and dependent care tax credit is not sufficient to make full time, high quality ECE affordable for middle and upper-middle income families. For these costs to be sustainable in a market-based approach, some assistance to parents will therefore be necessary. Otherwise, providers would not be able to charge sufficient prices to recover the costs of the recommended level of quality, and improvements in quality for the entire ECE market would not be feasible.

2. Alternative subsidy policies

Reviewing other near-universal US social benefits (Brandon, Kagan & Joesch, 2000), I found that the vast array of program benefits made available to populations of different income can be sorted into a limited number of financing mechanisms, offered singly or in combination. These include: income-related payments or vouchers; payments to institutions or providers to offer a service; credit preferences such as loans, guarantees or secondary market access; and tax preferences for families or providers. By focusing on the essential features of such financing mechanisms, we are able to consider the most effective design of a financing system without the baggage of how that particular mechanism might be applied in a particular set of programs.

Analyzing these mechanisms with state policy teams, conceptually and with simulation analysis, three mechanisms emerged as most promising, and two were considered too administratively complex or marginal in their benefits to families. The preferred approaches were:

- *a purely income-related payment in the form of a voucher or certificate to parents*. This would be an extension of the current form of assistance used most frequently

under CCDF, with the mixture of public subsidies and parental payments varying by family income;

- *a purely non-income related provider subsidy* or institutional payment to offer early education to eligible children without any parental payment. Models range from Head Start to kindergarten.
- *a hybrid approach*, where part of the cost (10-55%) is covered by a non-income-related provider subsidy, and the remainder is covered by an income related voucher. This is roughly analogous to the way higher education is financed, with about 40 percent of total costs for all students covered by state appropriations or other institutional subsidies, and individual students paying the remainder with an income-related mixture of grants or scholarships, subsidized loans and personal or parental payments.

The approaches not considered as desirable were:

- *Tax credits*. While it was considered to have some political appeal to offer subsidies through the tax side of the budget, several feasibility issues made it unattractive. First, it has been recognized that to be useful for low-moderate income families, the tax credit would have to be refundable in excess of liabilities, which would be a new departure for many state tax systems. Second, since ECE costs are incurred on a weekly or monthly basis, it would not be feasible for most parents to wait for an annual refund. While the federal Earned Income Tax Credit offers a model for monthly refundability, this would require establishing a substantial administrative capacity for state revenue agencies in addition to the administrative necessary to assure quality and accessibility of ECE.

- *Loans to families*. While we have demonstrated that these can be an advantageous approach for assisting middle and upper-middle income families (Brandon and Wilson, 1998), it was felt that these would also require major new administrative mechanisms, and that it would not be desirable to encourage mostly young families to take on greater debt burdens.

The analyses summarized below therefore focus on the first three financing approaches. Our policy simulation model allowed states to consider many different eligibility options, including employment or marital status of parents, stipends for mothers to stay home with their own children, different income eligibility limits and limitations on the number of hours per day or week that would be covered. We will not discuss all of these in depth in this paper. However, two are notable.

First is the maximum family income for determining eligibility for assistance. There are at least two valid perspectives on determining eligibility limits. One is to focus on a concept of universality, such as a principle that every child should have equal access to the first step of education without any parental payment, as is the case for elementary and secondary education. Thus, all children would be eligible and there would be no family co-payments. An alternative approach is to define universal access as every family being able to afford full time, full year high quality early learning, without spending more than 10 percent of income. Under such a perspective, the higher the cost specified, the greater the percent of children requiring subsidy. Since the objective is to hold net parent price to a certain percent of family income, parental co-payments that increase with income are a reasonable part of the package.

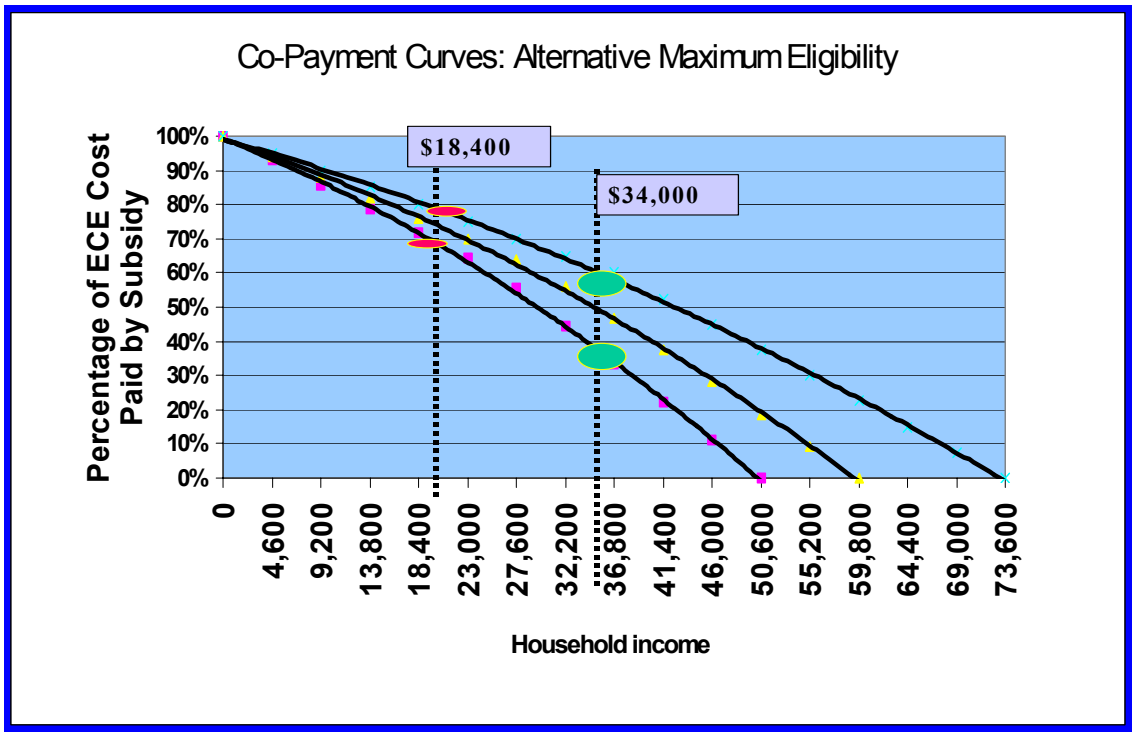
Eligibility policies

a) What percent of children and families should be eligible for assistance?

Simulating different policy packages for a diverse set of states, we have found that between 66 and 85 percent of children are likely to require some degree of subsidy to afford high quality ECE. As shown in Figure 1 below, however, increasing the maximum eligibility limit in an income-related financing approach does not imply that the majority of benefit funds must be shifted to middle and upper income children. Rather, as the maximum eligibility is shifted upward, moderate income families can receive the greatest increase. As shown in the chart, a family at about twice the federal

poverty level would have the share of ECE costs subsidized increase from 40 to 60 percent as maximum eligibility increased from $50,000 to $75,000 of family income. Families below the poverty line would have small increases, since most of their costs would be subsidized in either case. Families at the $50,000 income level would have as much as 40 percent of their ECE costs subsidized, while those at $70,000 would have less than 10 percent subsidized.

Figure 1. Parent Payments vs. Subsidies at Varying Income Levels



At this point we are confronted with competing policy objectives. Assuring that high quality ECE is affordable for all families requires subsidizing a majority of families. However, this increases the total budgetary costs and also shifts a portion of limited resources toward less vulnerable children. Successfully balancing these objectives requires a combination of carefully examining the cost of alternative service delivery specifications, and carefully designing the structure of benefits. In the next section, we therefore consider alternative ways of assisting parents, and the financial (cost and distributional) impacts of these alternatives.

b) employment status

Another financially significant eligibility determination made by most state teams was to consider parental employment status to be an inappropriate eligibility criterion in a system whose focus was on early learning and development. An early learning focus leads to different specifications than a policy scenario designed to encourage paid employment instead of welfare. Our simulation analyses indicated that eliminating a parental employment requirement added about 25-30 percent to total costs.

3. Deriving budgetary costs of subsidies from a simulation model

To combine the policies affecting the hourly cost of high quality ECE, with the policies to assist parents afford that cost, we developed a micro-simulation model. The model starts with a data base derived from a representative household survey of child care utilization which we designed and administered in the partner states.[4] In simplified form, our simulation model:

- estimates the hourly cost of ECE for each age of child and type of care (Center, FCC, FFN) based on the policy specifications reflecting the elements of high quality ECE;
- applies this hourly cost to the number of hours of each type of ECE used by each child in the data base, to derive a cost of high quality ECE for that child;
- estimates the amount of subsidy for which each child will be eligible, based on the policies specified and the characteristics of the child's family, and randomly assigns benefits to a percentage of children to simulate participation rate for subsidies; this yields a net price after subsidy for the family of each child;
- compares the net price of high quality ECE after subsidy to the current price reported on the survey, to estimate a change in price;
- changes in demand for ECE and maternal employment are then calculated, using coefficients derived from Blau and Hagy (1998); changes in state and federal taxes

[4] Summaries of each state survey including sampling size and methodology and major findings are available on the HSPC website, www.hspc.org.

paid by parents as a result in change in parental demand are then estimated from tax tables and parental characteristics;

- the model then aggregates the cost of subsidies and parental payments, and nets off changes in tax revenues as a result of demand changes, to estimate the budgetary cost.
- since this is a micro-simulation, we can estimate the total and average subsidy costs and parental payments for any subgroup of children as defined by characteristics reported in the survey. The analysis done to date has focused on subsidy costs and parental payments distributed by age of child, type of care, and family income of child.

This is the primary method for estimating costs in the section below. However, for the sake of comparison, I have also performed some more traditional calculations, simply applying the hourly costs of high quality ECE to half or full day programs made available free of charge to all children and families for a school year or calendar year.

When moving from modeled hourly costs to estimated budgetary costs, it is also necessary to consider issues of administrative overhead and efficiency. Cost derived from just staff salaries and desired ratios implicitly assume great efficiency, with no cost for short periods of operating below capacity in terms of children when it may not be possible to reduce staffing commensurately. I have built in a modest 10 percent factor for such frictional inefficiencies. It would be unwise to build in a significant incentive to operate consistently under capacity. The estimates provided below assume the same ratio of administrative costs to subsidy costs as currently occurs in CCDF. It is unclear whether moving to a much larger system, with income-related eligibility determined for most of the population, would yield economies of scale, or diseconomies due to larger bureaucracies. Middle and upper-middle income beneficiaries might have better income records than current low income clients, but might also have more complex sources of income.

Findings about budgetary costs of subsidizing high quality ECE

Table 2 below shows the potential national costs of several different concepts of "universal pre-K (UPK)," reflecting the issues discussed above. These are all built on the hourly costs of high quality ECE with the staffing and support patterns described above. The costs based on a lower salary level reflect linking BA-level ECE teacher salaries to that of social workers; the higher salary level reflects linking them to elementary teacher salaries. In both cases there is a mixture of staff at different levels, ranging from assistants with high school degrees to directors with advanced degrees. These costs may be lower than some existing pre-school programs that are built around using certified teachers as the major staff resource. It should also be noted that these are costs of basic early learning services, and do not include special services for children with disabilities or the family support, nutrition, health and transportation services that comprise a significant share of Head Start costs. I have used a consistent 90 percent participation rate for all options, based on the fact that 82 percent of US 4-year olds are currently in some amount of non-parental care (HSPC 2004). This is substantially higher than current state pre-K programs; for example, in Georgia, 52 percent of four-year olds participate in pre-K (Henry et.al., 2003a). It is also important to note that I report total subsidy costs, that could be shared in different ways. For example, they could be divided among different levels of government, between government and employers, or between direct spending and tax credit mechanisms.

Table 2 reflects the gross costs of high quality ECE under different approaches. It would be important to know how much current expenditures are available to potentially offset these costs. Unfortunately, I am not aware of any reliable data available regarding total current ECE expenditures for four year olds. The estimate of current child care and pre-K investments developed by OMB, indicates a total of about $24 billion annual spending on early childhood programs for children of all ages. However, this includes about $10 billion that is for services such as special education and nutrition that are not comparable to the basic early learning costs estimated here. About 29% of Head Start funding is for

social, health and transportation services (ACF/Head Start Bureau, personal communication) that are supplemental to early learning. For those costs that are comparable, we do not have information about the share that is currently spent for four year olds. Even more problematic is the inability to estimate how much of the current spending for 4-year olds could be subject to 'capture' under a universal pre-K system. Some large components, such as the TANF funds transferred to child care subsidies, are subject to competing demands in the states, and have already been reduced due to economic pressures on income assistance budgets. If we were to assume that UPK were adopted under a highly prescriptive federal program, then it might be possible to include some form of maintenance of effort clause that would keep the funds from being shifted to other age groups. However, if UPK is to be achieved by state-initiated programs, then it would be difficult in practice to keep funds from being shifted. The amount that can be counted on from redirecting current spending is therefore primarily a policy issue, not an economic one. A reasonable policy to capture funds currently spent for child care and basic early learning services on behalf of four year olds could probably yield several billion to offset the gross costs presented here.

The cost estimates for alternative UPK concepts are arrayed from the narrowest to the broadest income eligibility – from covering only low income four year olds, to covering all children age birth through five. I also show three levels of coverage for hours of care, ranging from a narrow half-day, school year approach, to either a full-time, full year approach or a demand-based estimate of likely hours in care.

Options 1A and 1B reflect a narrow, 'schooling' concept of pre-K, with each child entitled to a half day of high quality ECE during the school year.[5] If this limited option were provided only to 4-year old children in families below the official federal poverty line, the national cost would only be about $2.5-3 billion a year for basic early learning services. It should be noted that such an approach implies economically segregated services, since moderate and middle income parents would not be able to afford them.

[5] I have used 190 days per year for this estimate. This is more than most school year policies, and would leave room for paid days of professional development and program planning and preparation.

No costs of subsidies for non-parental care in the other hours or days are included. If this program were provided to both low and moderate income children, up to twice the federal poverty line, the cost would be about $5-6 billion, depending upon the staff salary level. This would also require economically segregated services.

Options 2A and 2B show the cost of covering 4-year olds in these same income groups under a hybrid financing approach such as that described earlier in the paper. This is the combination of a non-income related provider subsidy for about half the cost of ECE with an income-related voucher for the remainder, as described above. This is based on a market-oriented, 'developmental' approach, where it is posited that all hours of non-parental care must be of high quality to achieve the desired effects, and that high quality ECE in a variety of settings should be subsidized. In this case, the subsidy program is assumed to be available for the entire year, and the subsidized hours reflect current demand adjusted for increases due to reductions in the net price paid by parents. In this example, about half the costs are paid for by an income-related voucher, and there is a considerable contribution of parent fees, particularly by moderate income (1-2 FPL) families. Since this approach would cover many more hours, the costs would be considerably higher – approximately double the cost of a half-day, school-year program. The portion of subsidies devoted to low income children would range from $4 to $7 billion, depending upon the salary standards. The costs for covering the low and moderate income 4-year olds would range from about $8 to $13 billion. The differences between lower and higher salary standards become magnified here, since the subsidies and co-payments are adjusted to assure affordability for children in all groups. As discussed above, it is highly questionable whether these cost levels would be sustainable if only low or moderate income children were eligible, since the prices would not be affordable for middle income families. The full costs of such an approach are reflected in option 2C, which makes subsidies available on an income-related basis for about three fourths of four-year old children, assuring affordability for all income groups. Such an approach would cost about $10 to $18 billion a year. Note that all 4-year olds would be eligible to participate, but the most affluent quarter of families would be required to pay the full cost.

Table 2. Estimated Annual National Costs for Universal PreK ($ 2003 Billions)

	Lower Salary Levels	Higher Salary Levels
Half day, school-year program. Low vs. moderate income		
1A. Low Income 4's; half day, school year. No fees.	2.4	2.8
1B. Low + Moderate Income 4's; half day, school year. No fees.	5.2	6.1
Full-year, all paid non-parental hours.		
2A. Low Income 4's; hybrid with income-related fees; demand-based hours, all year.	5.2	6.1
2B. Low + Moderate Income 4's; hybrid with income-related fees; demand-based hours, all year.	7.7	13.0
2C. Three fourths of 4's, hybrid with income-related fees, all year, demand-based hours.	10.5	17.8
Part time vs. full time programs; No fees.		
3A. All 4's, half day, school year. No fees.	12.6	14.9
3B. All 4's, full day, all year. No fees.	33.3	39.2
Covering all children B-5, with/without fees		
4A. All B-5, hybrid with income-related fees, all year, demand-based hrs.	31.1	51.9
4B. All B-5, Free ECE for All, all year, demand-based hours.	----	167.8

Notes: Low income = <1 FPL; 727,000 4-year old children in 2000;
Low + Moderate = <2 FPL; 1,606,000 children in 2000.

The economic value of including parental payments can be seen by comparing option 2C to options 3A and 3B. The latter options reflect the cost of providing the same quality ECE to all four year old children with no fees for half-day, school year (3A) or full-day, full year (3B). *At the lower salary level, it would cost more to provide half-day, school year service with no fees ($12.6 billion) than to provide full-year, demand-based service with parental fees ($10.5 billion).* At the higher salary level, the half-day, school year

option with no fees, would cost about two thirds as much ($11.8 billion) as the full-year, demand-based hours with fees ($17.8 billion).

To provide full day, full year pre-K to all 4-year olds with no fees, illustrated as option 3B, would cost between $33 and $39 billion, depending on salary standards. However, I believe that these are over-estimates, because many parents are not likely to use full-year, full-day ECE for their young children. Rather, the demand-based estimates are more realistic in reflecting both the likely utilization patterns and the ability of parents to contribute toward the cost.

Finally, I have carried the developmental logic to its full implications and estimated the cost of covering all children age birth to five under the hybrid financing approach, with demand-based estimates of utilization (4A). This would cost between $31 and $52 billion a year. Providing the same coverage on a free basis, with no parental fees, could cost as much as $168 Billion (4B), including the impact of much higher utilization and participation rates.

How should policy makers evaluate this different approaches, with such a wide range of costs?

There may be a great temptation to reach for the lowest cost options, providing half day, school year programs for low and moderate income children, with the rationale that this can provide a modicum of enrichment to the children at greatest risk. But we must question whether this will achieve the objective of early learning. Will 760 hours a year of high quality ECE offset the developmental effects of a thousand or more hours of low quality care? As noted above, the emerging literature comparing full to half day kindergarten suggests that the amount of time spent with qualified teachers significantly affects child outcomes. And do we want to segregate low income children into separate programs, that middle income families cannot afford? The literature on elementary and secondary education suggests that such segregation is also detrimental.

The alternative approach represented by option 2C, which would make high quality ECE financially accessible for all the hours of non-parental care that parents desired for four-year olds by a combination of provider subsidies and income-related parental assistance, would still have a relatively modest national cost of $11 to $18 billion a year. While this would be a substantial increment to current early childhood expenditures, it would represent spending equivalent to only 2-4 percent of current national elementary and secondary education expenditures.

If one accepts the developmental argument that early learning is a continuous process starting at birth, and is affected by the quality of non-parental care at each age, then achieving the objective would require providing access for children age birth through five. The hybrid combination of provider subsidies and income-related parental assistance would cost about $31 to $52 billion a year. This would require spending equivalent to between 6 and 13 percent in total US elementary and secondary education expenditures. While significant, this is within the range of increases adopted to meet the needs for better teacher compensation or lower class size.

Again, the importance of parent fees is illustrated by comparing the costs of the hybrid financing approach to one where all children age birth through five receive high quality ECE for free (4B). The latter approach would cost about $168 billion a year, equivalent to an increase of about 30 percent in elementary and secondary education spending. Such a major increase in funding would require major new revenue sources, and a massive new social commitment. An important concern is that if universal pre-K for four-year olds is to be the first step toward a high quality early learning system, then setting the precedent of no parental payments could make fulfillment of the ultimate objective impossible.

There are of course tradeoffs between free access and a hybrid approach. Requiring parental payments may depress demand, with some children remaining in lower quality settings. The experience of higher education and health insurance, which have partially income-related financing systems, may be taken as illustrations of the difficulty of achieving universal coverage in this manner. On the other hand, some policy makers

believe that charging even low income parents small fees gives them a greater sense of investment in the program, and reduces the likelihood that they will tie up resources by enrolling their children then not actually participating. The question for policy makers and advocates, then, is which is more likely to achieve the objective -- a free service approach which has an untenable cost, or a hybrid approach that will have an imperfect guarantee of access and will require adjustments and improvements. I believe the experiences in the states that have moved toward universal pre-K suggest that because of the high cost, a no-fee approach will either end up with policies to cover only a small percentage of children, as in New York, or never get beyond 4 year olds, as in Georgia. The policy simulation modeling approach we have developed allows policy makers to explicitly consider the affordability of co-payments to parents of different income groups and minimize their impact on utilization of early learning opportunities.

How should policy makers deal with the uncertain impact of building cost estimates on higher or lower teacher compensation levels, since they entail such major differences in overall budgetary cost? One approach would be to start with the lower compensation level, which is still much higher than current child care teacher salaries, and fund experimentation by states or localities with higher levels. It would then be possible to evaluate the impact of varying compensation levels on the recruitment and retention of qualified personnel, interaction between ECE and K-12 teacher markets, and ultimately on developmental and school achievement outcomes for children.

Targeting resources to the most vulnerable children

In the previous sections, we emphasized the need to assist middle income families to afford the costs of high quality ECE, and estimated the costs of doing so. One argument made against universal approaches to financing is that they may shift a share of the limited available resources to children who are less in need. While we have noted Barnett's work indicating that middle income children are in educational need of improved quality ECE, and demonstrated that middle income families are in financial

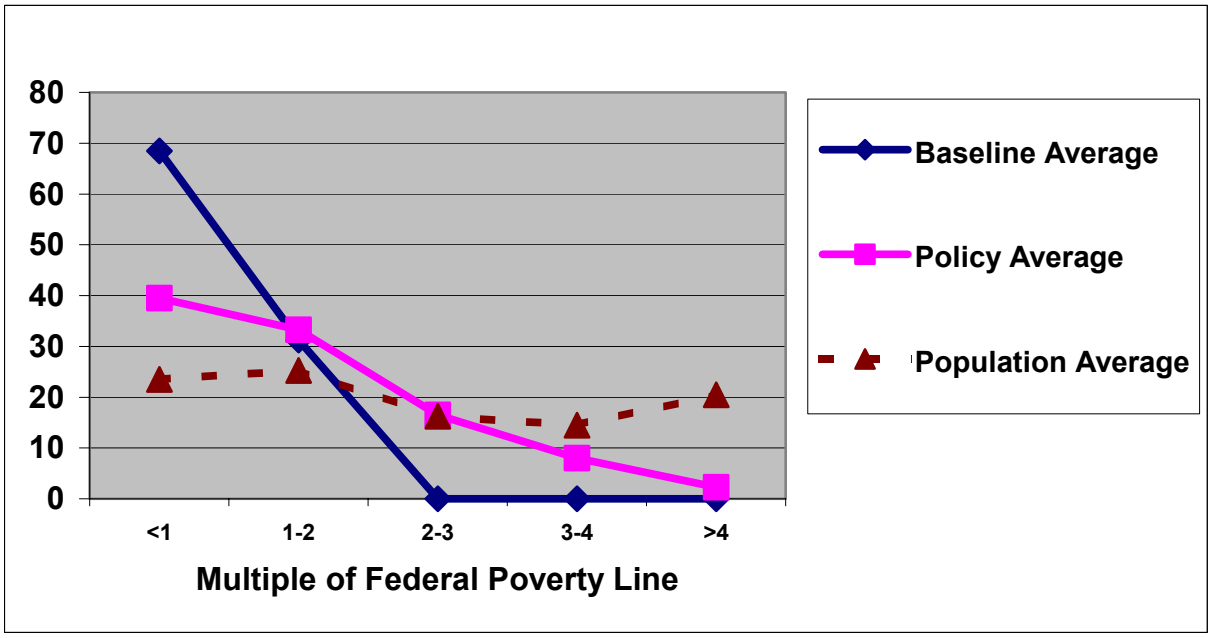
need, it is still important to consider whether universal financing policies go too far in shifting resources toward middle and upper-middle income groups. Figure 2 below compares several subsidy approaches with regard to the percent of total benefits that would be allocated to various income groups under different policy approaches. We have not included the value of the child and dependent care tax credit (CDCTC) in this comparison, since none of the partner states decided to include a tax credit in their recommended package of benefits, and state policies cannot determine the level of the federal tax credit.[6] The CDCTC is therefore a constant that would add a substantial amount of middle and upper income benefits to the levels shown here, but would not affect the relative distribution of the different approaches. A national policy simulation should include the impact of the CDCTC, and consideration of whether the limits on the claimable costs per child should be increased to reflect the cost of higher quality ECE.

It is important to note that the total amount of benefits would be greatly increased under any of the approaches, so that while the share going to a certain group might decline, the total amount going to that group would still increase. We have shown the shares of benefits to income groups defined as multiples of the federal poverty line, rather than family income levels, since this is consistent with the terms in which policy is usually set, and because it takes into account the relationship of family size to income. The triangle line shows the percent of children in the population in each income group. As expected, the Free ECE for All scenario allocates total benefits in close proportion to this line, since income is not a factor in determining benefits. Under the current baseline most spending benefits are targeted to the 49 percent of children in the lower two income groups. Our simulation runs of the hybrid policies across the four states produced similar distributional benefits, despite some variations in the policy. We therefore show here the distributional impact of the hybrid PPAP averaged across the four states. It occupies a middle ground, with about three fourths (73%) of total benefits allocated to the 49 percent of children in the lower two income groups. About 17 percent would go to 16

[6] The value of the CDCTC to families is taken into account in the calculation of what level of subsidies are required to make high quality ECE affordable at each income level. Families were assumed to claim the full amount of the credit to which they would be entitled, with the amount of claimable expenses reflecting their reported hours of care and the increased costs of higher quality ECE, subject to current limitations.

percent of children in the middle group. The 36 percent of children upper two income groups would receive about 10 percent of total benefits. The overall impact would be to devote about a quarter of total spending to assuring middle income affordability, while maintaining a high degree of progressivity overall. This shows that it is possible to design a universal, income related system that provides some assistance to middle income children to assure their participation, and still allocates the bulk of benefits to the most vulnerable children.

Figure 2. Percent Total Benefits by Income Group
(Exclude federal tax credit)



Federal, state and local roles

There are several different issues that should be considered in determining the appropriate roles of federal, state and local jurisdictions in assuring financial access to early learning.

The uncertainties in the literature regarding the levels of formal education and the compensation required to recruit and retain well qualified staff suggest that it is desirable to have a wide range of experimentation to test out different approaches. While it could

be possible for the federal government to allocate funds and leave such critical decisions to states, such a policy could lead to large inequities. Assume, for example, that federal funds were allocated on the assumption of high salary levels. If some states chose to set lower salary levels, they could either serve more children than high salary states, or provide the same level of service with a much lower state match. Conversely, if federal funds were allocated based on lower salary standards, it could be prohibitively expensive for states to experiment with higher standards, particularly lower income states with more limited tax bases. We have found that the optimal approach regarding personnel policies varies by states, reflecting their labor markets and the capacity of their higher education systems to produce large numbers of graduates at AA or BA levels. One potential resolution is to allocate a base amount of funding predicated on lower salary levels, then offer additional federal-state matching funds for states adopting higher levels. If such additional funding were offered on a limited basis, with a requirement to participate in a national evaluation of impact, this could form the basis of a natural experiment to help determinate the most appropriate salary standard.

It is also important to consider whether early education should continue to be framed as a welfare and employment issue, which is normally dominated by the federal government – in both financial and policy terms-- or as an education issue, which are normally dominated by the states. The current work-welfare formulation of child care subsidies is that the recognition of the function of child care in facilitating work has produced a major increase in funding since 1996, and the public seems to remain supportive. However, this policy frame has led many states to de-emphasize quality in favor of quantity of children in care, and neither federal nor state funding has been sufficient to move the field toward professionalization and a level of quality that would assure rich learning opportunities. I have argued elsewhere (Brandon, Kagan & Joesch, 2000) that framing the issue as part of education with a middle income constituency would both broaden overall support and bring with it an expectation of well- trained, well-compensated staff. However, there is a danger that completely shifting the issue to the educational realm could entail a loss of federal financial leadership. While at least two thirds of CCDF funding, and most of Head Start funds, are federal, only 7.3% of elementary and secondary education and

10.8% of higher education revenues are federal (NCES, 2004). If states are left to play the lead role, many may lag in meeting the needs of their young children. The degree of state commitment to matching federal CCDF funds is extremely low in some states, even insufficient to receive all federal matching funds to which they could be entitled.

While it is conceptually and administratively messy, it would seem desirable to maintain recognition of the dual role of early care and education, with multiple revenue streams contributing to the overall goal. States could be empowered or encouraged to blend funds from HHS directed toward low income children with education-based funding that could be used for children at all income levels.

It is also important to consider the role of local jurisdictions. While only 7% of elementary and secondary education revenues are federal, the remainder is 50 percent state and 43 percent local. In many part of the US, local jurisdictions have been the leaders in generating additional revenues for early education. Examples include the local children's services taxing districts in Florida, the Families and Education Levy in Seattle, and private funding raised in Allegheny County, Pennsylvania (Mitchell, Stoney & Dichter, 2001). Encouraging a local revenue contribution can help build public support, with constituents seeing a greater ability to control the dollars they contribute. Leading districts can also set an example and demonstrate the impact of high quality programs that can then be emulated by others. Of course, the split between state and local funding responsibility is controversial, with many analysts contending that letting wealthier districts raise a significant share of funds decreases their support for statewide funding and fosters inequities. However, many mechanisms have been developed for equalizing funding among districts. Splitting the burden of incremental funding among federal, state and local jurisdictions can limit the budgetary impact and competition for funds faced by each set of policy makers, reducing the fiscal barrier to adoption of a universal financing policy. There may be concern that some state and local revenue sources, such as sales taxes and lottery funds, tend to be regressive, while the federal income tax is relatively progressive. I would argue that a lesson from the growth of universal elementary and secondary education funding is that it may be most valuable to

get universal funding accepted as a principle with the minimum fiscal barrier, then argue how to improve the equity of funding distribution as a refinement. If the benefit level is related to income, as I have proposed above, then a progressive distribution of benefits can offset a less progressive source of funds. Most importantly, if the financing system is built from the basic proposition that every child is afforded financial access to care by well-qualified staff, and other policies are built consistent with that proposition, then the most important aspect of equity can be assured.

Conclusions

The cost estimates we present in this paper show that there is a wide range of potential national costs, from $2 billion to $169 billion, to implement different concepts of universal access to high quality early learning experiences. The options most likely to achieve child development objectives by providing for high quality caregivers during all periods of non-parental care have costs that can be handled without major new revenue sources or restructuring of social commitments.

Taking a narrow definition of universal preschool education – limited programs for low income children only – minimizes budgetary cost, but is not likely to achieve objective of all children achieving their potential for social, emotional, regulatory and cognitive development.

Achieving truly universal access to truly high quality early learning experiences is affordable at modest increments to education spending levels. Doing this by building on the existing ECE system, rather than replacing it with a school-based system, and supporting the cost by a combination of provider subsidies and income-related parent benefits can achieve universal affordability at a more feasible cost level than a no-fee approach. It also yields a more progressive distribution of benefits.

Providing affordable access for all four year olds, while maintaining some degree of parental financial responsibility, would cost between $11 and $18 billion a year. Several billion dollars of offsets could be achieved by adopting some reasonable form of

maintenance of effort, assuring that funds currently spent for four year old children's early care and learning continue to be devoted to that purpose. While these would be major increases compared to current child care subsidies, they would be equivalent to a modest 2 to 4 percent in public elementary and secondary education spending.

Providing such access to all children age birth through five would cost about $31 to $52 billion. This could potentially be offset by about $8 to $12 billion of current early care and education spending, depending upon what policies regarding use of existing funds were developed. This could resulting in net annual increases of as little as $21 to $42 billion. These would be equivalent to about 6 to 9 percent of public education spending without any offsets, and 4 to 8 percent if about $10 billion of current spending were recaptured for this purpose.

Assuring financial access to all preschool children through public subsidies, with no parent fees or co-payments, would be fiscally infeasible, requiring spending increases equivalent to 28 to 30 percent of current public elementary and secondary education spending. This would require major new revenue sources.

Sharing the financial burden among federal, state and local jurisdictions would keep the costs from being fiscally prohibitive for any one. It would also allow a balance of national standards to assure quality, with state and local variation to reflect the conditions of local labor markets and higher education capacity.

Even within each of these concepts, there is a wide range of potential costs, due to great uncertainty about major requirements to assure quality, particularly the specific education level required for teachers and the level of compensation necessary to recruit and retain teachers at these levels of qualification. Some of these uncertainties can be addressed by further programmatic research and evaluation (e.g. staff qualifications); others are likely to require natural experimentation, since the effects can only be observed at the level of jurisdictions or labor markets.

Imposing national or federal staff qualification and compensation standards that fail to recognize differences among state labor markets and higher education capacities could yield insufficient allocations for some states and excessive allocations for others. Maintaining cultural diversity of early childhood teachers must be considered when developing policies to promote better professional qualifications.

We must come to grips, conceptually and operationally, with the dual function of ECE. This implies greater public acceptance of the educational function, and a concomitant linkage to educational financing structures. But this poses administrative challenges for linking human service, employment and educational agencies at federal, state and local levels.

Moving or re-shaping the diverse early care and education market is more complex than designing and implementing a program for a narrow category of children, but in the long run is likely to yield better outcomes through greater parental choice and engagement, better tailoring of policies to variations in state and local labor markets and less daunting levels of impact on the public fisc.

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