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ABSTRACT

Different approaches for expanding quality early childhood education in the United States are investigated in this report. After a summary and an introduction, section 2 discusses the values and benefits associated with early childhood education programs. Section 3 provides a description of the workings of a public school-based system for 3- and 4-year-olds. Case studies of Braxton County, West Virginia, Independence, Missouri, and France, are presented in sections 4, 5, and 6, and offer interesting insights into the workings of a public school-based model. Section 7 shifts the discussion to a preschool program based on publicly funded vouchers provided to poor and other lower-income families that could be used in approved, private preschool settings. A brief case study of how one state, Texas, runs this type of program follows in section 8. Section 9 provides estimates of what it would cost to operate each of the models developed in this report. Section 10 offers some guidance as to how these programs could be financed. Finally, sections 11 and 12 offer an analysis and concluding remarks about the merits and tradeoffs associated with each of the options. Contains 41 references. (AA)

# EARLY CHILDHOOD EDUCATION:

# MODELS FOR EXPANDING ACCESS

By

Marsha Regenstein
Sharon Silow-Carroll
Jack A. Meyer

Submitted to

THE PEW CHARITABLE TRUSTS



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## ABOUT ESRI

The Economic and Social Research Institute (ESRI) is a nonprofit organization that conducts research and policy analysis in health care and in the reform of social services. ESRI specializes in studies aimed at enhancing the effectiveness of social programs, improving the way health care services are organized and delivered, and making quality health care accessible and affordable.

ESRI was founded in 1988 and is based in Washington, D.C. Jack A. Meyer, Ph.D., is president of ESRI.



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## SUMMARY

The U.S. is fighting an uphill battle in its efforts to improve early childhood education. A revitalized commitment to "school preparedness" is motivating educators and policymakers to expand educational opportunities to children at younger ages, but there are enormous obstacles in their path, including a growing trend toward higher rates of poverty among our youth.

One important factor feeding the cycle of poverty and dependency involves inadequacies in our education system. We are losing children during school-age years, and the *seeds of school failure and dropout are often sown even before children enter kindergarten.*

We already know that quality preschool education represents one proven way to increase the odds that young children will enter elementary school ready to learn and ready to interact positively with other children. Research on high-quality early childhood education programs confirms that preschool experience has positive short- and long-term results, especially for children in lower-income groups.

Millions of children currently take advantage of early childhood education—American families spent an estimated $13.9 billion on child care and early education for three- and four-year olds in 1994. The problem, however, is that we have not devised a way to bring quality early childhood education opportunities to *all* families who desire such care for their children. Only about 40 percent of all children entering kindergarten have had some type of formal pre-kindergarten experience. In certain high-poverty areas, as few as 25 percent of children have educational experiences prior to kindergarten.

A sizeable increase in these numbers would require an additional public investment. Even marginal increases in public dollars for early education could be a hard sell to the Congress, the states, and localities across the country that are advocating less government spending and more personal responsibility. Additional public investments in child care and early childhood education, however, should not be viewed as antithetical to these objectives. On the contrary, affordable and accessible programs can actually promote long-term savings and personal responsibility by: providing a necessary support service for parents, especially those transitioning from welfare to work; and producing a better educated population that translates into higher productivity and economic gains.

Early education in this country should be expanded to meet three goals:

- early childhood education opportunities must be universal and cost should not pose a barrier to enrollment;
- children should be "ready to learn" and on equal footing when they enter kindergarten; and

- special services should be available for children at risk of school failure.

The Economic and Social Research Institute (ESRI) has developed three approaches to meeting these goals. Each model is voluntary; under no circumstances would families be *required* to enroll their children in preschool programs.

- Model 1 - a public school-based program with a core component that is free to all; afternoon wrap-around services would require sliding scale payments;

- Model 2 - a public school-based program that requires sliding scale fees for all families with incomes above 133 percent of poverty (with the subsidy ending at 185 percent of poverty); and

- Model 3 - a system of publicly-sponsored vouchers for private preschool programs that builds on the current landscape of early childhood education in this country; families with incomes up to 133 percent of poverty receive the full subsidy, and those with incomes between 134 and 185 percent of poverty receive partial subsidies.

**Public School Models 1 and 2**

The public school-based Models 1 and 2 would be implemented and administered through existing public school districts across the country. The following design issues are related to the public school-based models (although some of them also relate to alternative models):

- A well-designed preschool program should include mechanisms to attract and retain qualified personnel. Too many preschools now suffer from high teacher turnover due in large part to low wages and poor working conditions. Children in programs with high staff turnover have been found to achieve less in social and language development.

- If preschool teachers are required to be as well-trained and educated as other public school teachers, they should be paid according to the same salary schedules and have the same benefits.

- School districts should have flexibility in determining what educational and training requirements would apply to teachers' aides and other classroom assistants.

- Quality can be enhanced through ongoing training and continuing education programs for teachers that focus on preschool experiences.

- Establishing a public school-based preschool program would likely result in a shift of many teachers and staff from the private sector to the public sector.

- The National Association for the Education of Young Children (NAEYC) recommends that classes of three- or four-year olds be no larger than 20, with about 7 to 10 children per preschool staff member (National Association for the Education of Young Children 1991).

- When space permits, it would be beneficial to locate the preschool program (perhaps with the kindergarten classes) in a separate section or wing of the elementary school, and keep all preschool activities within that designated area. This would serve to contain the noise of younger children's activities, while at the same time giving them (and their parents) a sense of continuity and "belonging" to the school. They would be removed from the bigger children, but still close enough to facilitate cooperation and communication between preschool and elementary school teachers.

- A "developmentally appropriate" teaching method appears to be best for children ages three to five. Child-initiated learning programs help to foster positive social development better than programmed-learning instruction programs, which encourage dependence at a time when it is important for children to begin to develop self-reliance.

- A new expanded preschool program should include a number of targeted services for poor children, or other children who are at risk of school failure. These services include health services and referrals, dental services, speech and hearing assessment, screening for disability, social services, and programs to involve parents. Poor children should be able to obtain the same set of comprehensive services that they would obtain on their own if income were not a barrier.

## Case Studies of a Public School-Based Preschool System

### *Braxton County, West Virginia*

For the past 12 years, a local public school district in Braxton County, West Virginia has operated a universal early childhood education program. The preschool program operates from early September through May, and is open from 7:30 am to 3:15 pm. It blends the county's Head Start children with a broad range of other local children in the community.

The cost of the preschool program is about $3,700-$3,800 per child per year, with all of the financing provided from within the existing school system budget. Families pay no additional fees for their children to attend. This is possible because declining enrollment in elementary school permitted funding to be redeployed to initiate the preschool program.

A special effort is made in Braxton County to reach out to disadvantaged children and to help get them ready for school. A pilot program allows social workers to make weekly visits

to the homes of at-risk three-year olds to help parents provide a healthy and safe environment for their children.

***Independence, Missouri***

About seven years ago, the Independence, Missouri school district began a pilot program of the "School of the 21st Century" model in eight of the district's 13 elementary schools. All children ages three and four in the school district are eligible to attend, although space may be limited. Approximately 500 children, or about one-third of eligible children in the district, are enrolled in the public school-based preschool program. Fees charged are $63 per child per week. Another 300 are enrolled in separate Head Start programs.

The programs of the School of the 21st Century are complemented by other agencies that work in concert to meet the needs of children and families in Independence.

A number of Schools of the 21st Century have begun in the past several years in urban, suburban, and rural areas, demonstrating the program's replicability and adaptability to various settings. Significant participation rates indicate that the program does not have to be free in order to attract enrollees.

***Preschool Program In France***

The French preschool system, école maternelle, provides publicly-supported universal early childhood education to children ages two to five. Virtually all three- and four-year olds attend. The primary goals of the école maternelle system are to provide cognitive development in the framework of a developmentally appropriate curriculum, and socialization. The nursery school day is a combination of language arts and developmentally appropriate exercises, crafts, games, dance, singing, rest, and play.

The emphasis on universal access to publicly-supported schools with a common curriculum has not prevented the French education system from making a special effort to reach out to highly vulnerable populations. The main effort to reduce under-achievement in school is the Zones of Educational Priority (ZEP) program, adopted in 1981. The ZEPs have incorporated design alterations such as: reduced ratios of pupils to teachers, increased teacher pay, more teachers with on-the-job experience, more teacher aides and other specialized personnel, longer hours of operation, extra effort to involve parents in the school, greater flexibility, and language training. An evaluation of the ZEP program revealed that it had led to small, positive improvement in subsequent school success.

France seems to have achieved universal participation in two ways: by making early childhood education free, with national and municipal governments splitting the costs (although income-related fees are charged for meals and wrap-around services), and by designing a good product. Of course, because everyone pays for this education through taxes

(primarily the VAT and local property taxes), it is not literally free. But no family is forced to forgo the experience due to a lack of financial resources.

The French system measures up well against the three goals for early childhood education listed earlier in this report, i.e., that the system should be universal, that children should be "ready to learn" when they enter kindergarten, and that special services be available for at-risk children.

**Publicly-sponsored Voucher System: Model 3**

The existing system of private, center-based early education programs can provide a basis upon which to build an expanded early education system for three- and four-year olds.

The voucher model developed here is based on providing full subsidies for early childhood education to poor and near-poor families (up to 133 percent of poverty), and sliding scale subsidies for families with an income between 134 and 185 percent of the federal poverty line. Like the public school-based model, the voucher option would be voluntary, with parents choosing whether to send their children to preschool. Unlike the public school-based option, parents would have greater choice in the type of program chosen.

The following design features would apply:

- The voucher program would require a certain set of predetermined quality criteria to assure that these children are enrolled in a program that is safe and developmentally appropriate.
- The subsidy level would be set to provide 100 percent of the average market rate in the region.
- Staff qualifications need to be appropriately identified without being overly rigid.
- A voucher program should provide enhanced services to those children at risk of school failure, similar to those listed above.

*A Voucher Program in Texas*

Texas is an example of a state that currently relies on vouchers to subsidize some families in need of child care and early education services. Like many states, Texas must comply with regulations that accompany the funding to identify the populations that can benefit from the dollars. But Texas stands out for the innovative ways that it has accommodated the various eligibility and funding streams, thereby maximizing the federal funding available for these purposes. It has accomplished this in large part through the design of the Child Care

Management System (CCMS). The CCMS integrates funds from twelve sources that serve twenty-two different client groups.

Texas allocates child care subsidies across 27 service delivery agencies based on economic and demographic characteristics. These agencies, as part of the computerized CCMS system, can communicate with each other and share important information. In addition, when families move to different locations within the state, they retain their status within the CCMS. The system facilitates the family's ability to maintain a steady stream of child care funding, regardless of their mobility.

Even with Texas' success in creating a seamless network of funding, there are limitations that have real consequences for a family's ability to secure quality child care and remain off the welfare rolls. Without state funding to augment federal sources, Texas is relegated to providing only what the federal government's funding sources offer. These sources, while vitally important to children and families, frequently come to an abrupt halt before a family has safely crossed the line from economic dependency to economic self-sufficiency.

## Estimating the Costs of an Expanded Early Education Program

Regardless of the model chosen, it is clear that the country would need to dedicate a significant amount of new public financing to enable many more poor and near-poor three- and four-year olds to experience an early childhood education program. The total public cost of a fully implemented year of an early education program ranges from about $7.7 billion to about $25.5 billion in 1994 dollars.

Each model offers a different set of costs and participation rates. Model 1 presents an opportunity to reach the largest number of preschoolers, but its sizeable price tag for new government spending is likely to scare off even some ardent supporters of a universal preschool system. Model 2's costs are much lower, but so are its participation rates. The voucher plus Head Start option is the least costly model, although it also promises the lowest participation rates for the total population of three- and four-year olds, and especially for those who live in middle-income households.

### *Resources Available From Current Sources*

One way to help finance an expanded early education program for three- and four-year olds is to consolidate existing public funds used for child care and early education. Existing public spending takes the form of *direct outlays* on child care or early education programs, and forgone revenues associated with *tax credits* for the same activities. ESRI estimates currently available resources for an expanded preschool program from existing federal and state programs to total $6.7 billion for the public school-based models, and $4.7 billion for the voucher model (the latter amount is less because much of the Head Start program would be retained).

*Financing The Shortfall*

Transferring existing public funding would certainly help pay for an expanded preschool program, but it would not meet all of the financing requirements. The following shortfalls remain:

| Model | New Funding Required (1994 dollars) |
|---|---|
| 1 - Free Public School-Based | $18.8 billion |
| 2 - Sliding Scale Public School-Based | $6.4 billion |
| 3 - Publicly Funded Voucher | $3.0 billion |

The method of financing the shortfall rests heavily upon the choice of model. Model 1 lends itself toward local financing through property taxes, with only marginal or specialized support from states and the federal government. Models 2 and 3 depend more on federal and state support and funds would have to be raised through income, sales, excise, or payroll taxes, lotteries, or by adjusting budget priorities and shifting funds from other programs.

Analysis

Each model for expanding preschool opportunities in the U.S. has important advantages and disadvantages:

- With its part-time program that is free regardless of income, Model 1 attracts the largest number of participants—estimated at about three-quarters of all three- and four-year olds, and nearly 90 percent of four-year olds alone. The Model 3 voucher program has the lowest participation rates—just over half of all three- and four-year olds. All of the models show an improvement over current preschool attendance, though Model 1 would clearly be most preferable if universal participation were the main objective.

- Models 1 and 3 promise a greater degree of integration across income categories than Model 2. Model 2 differs from the other models in that the fee structure would likely lead to a much larger portion of poor and near-poor children attending the public school program than higher-income children.

- For Models 1 and 2, the quality of the preschool would likely dovetail the quality of the elementary school, or in some cases the larger school system to which it is attached. In Model 3, quality can be even more varied. Even if accreditation were required for receipt of public subsidies, it is likely that the private sector would exhibit a fairly broad range of experience with respect to the quality of programs. This uneven quality, across literally thousands of free-standing preschools throughout the country, could create a regulatory nightmare under a quality assurance program.

- Philosophically, many would agree that the public schools represent the appropriate site and system for preschoolers as well. Model 1, therefore, could be viewed as an appropriate adjustment to the public school system to close the gap that it created by beginning schooling at age five or six. Others, however, prefer private-oriented approaches. Some people might embrace the pluralism of the private preschool market over the rigid "one-size-fits-all" character of public schools. Under Model 3's voucher program, three- and four-year olds would be enrolled in many different sorts of programs that presumably best meet the needs and preferences of the children and their families.

- Model 1, which would require by far the greatest public contribution, would face most resistance from a financing perspective, but it is the only model of the three that offers a new benefit to the middle class. It would shift nearly $14 billion currently shouldered through personal spending into the public sector. Models 2 and 3 are much less expensive to the government, but they have the political disadvantage of targeting poor and near-poor children.

- Only the Model 3 voucher program, which would infuse the private preschool market with more new children and dollars, would have the strong support of the private preschool industry. Adopting Model 1, on the other hand, could greatly disrupt the existing private market and labor pool. There would likely be an enormous amount of resistance from the private preschool industry, despite the ability of some private preschool teachers to become employed within the new public school system. Model 2, which would pose a smaller threat to the private preschool market, would engender some opposition as well, though to a lesser degree. One option to diffuse the opposition could be to include incentives for private caregivers to shift their business more toward infants and toddlers up to the age of three, where there is a serious shortage of quality arrangements.

- While all three models offer improvements over our current system, it appears that Models 1 and 3 are stronger options than Model 2. Model 1 is expensive, but it goes farthest toward making preschool universal. It would firmly embed early education into the public school system, and the vast majority of three- and four-year olds from all income levels would likely participate. Model 3 sacrifices universality, but it requires the least new funding, and would benefit those children most at risk of school failure.

While the cost of a new preschool program poses a major hurdle, it is essential for Americans to understand that the estimates presented in this report represent only a partial analysis. These estimates do not take into account the *benefits* that accrue over time—not only to the education system, but also to the criminal justice system, the social welfare system, national and state tax bases, and the business sector. Thus, the considerable cost of providing early education to three- and four-year olds is better viewed as an investment in the future, with a potentially large long-term payoff.

## I. INTRODUCTION

The U.S. is fighting an uphill battle in its efforts to improve early childhood education. A revitalized commitment to "school preparedness," embodied in Goals 2000 legislation, is motivating educators and policymakers to expand traditional educational opportunities to children at younger ages, but there are enormous obstacles in their path. One of the most significant is a growing trend toward high rates of poverty among our youth. For example:

- More than one in five children live in poverty, with the highest rate of poverty occurring among children six years of age and younger (Bureau of the Census 1992).

- Over 25 percent of three- and four-year olds live in poverty (Bureau of the Census 1994).

- African American and Hispanic children experience even greater rates of poverty—40 percent and 32 percent respectively (Bureau of the Census 1992).

Along with increasing numbers in poverty, American youth are continuing to demonstrate high rates of school dropout, teen pregnancy, unemployment, and more involvement in violent behavior.

- About one of seven youth fail to finish high school, with catastrophic consequences for a successful career (Bureau of the Census 1994).

- The poverty rate for people who failed to complete high school was 24 percent in 1992 (Bureau of the Census 1992).

- One million teenage girls become pregnant each year (Alan Guttmacher Institute 1994).

- On average, arrests for juvenile violent crime increased 50 percent during the period 1985-1991. In certain states, the increase was more than twice as high (Annie E. Casey Foundation 1994).

While many factors such as broken families, problems with our welfare system, drugs, crime, and discrimination are feeding the cycle of poverty and dependency, one important factor involves inadequacies in our education system. We are losing children during school-age years, and the *seeds of school failure and dropout are often sown even before children enter kindergarten.*

Most policymakers understand that there is no one answer to the myriad of socioeconomic problems facing young people—that no one "program" will by itself resolve the array of complex issues that percolate together to produce a cycle of poverty and dependency. But certain types of interventions *can* set children on a different path—a path more likely to result in lower rates of school absenteeism, better school performance, lower dropout rates, and a host of other parameters that in general prepare a young person for a successful transition from being a student to being a worker and responsible family member.

There is evidence in the U.S. and abroad that high-quality, early childhood education programs can better prepare children for elementary and secondary education. Roughly 60 percent of higher-income American families (500 percent of poverty or more) already send their three- and four-year olds to a full- or part-time preschool program; only 35 percent of poor families do the same (General Accounting Office July 1993). But there is a cost to children who cannot participate in these programs, in terms of lost opportunities. There is also a cost to society, with less opportunity to reap the benefits associated with high-quality early childhood education such as lower rates of dependency, additional tax payments from earners with taxable income, savings in justice system costs, and reduced crime. Estimates of the "payoff" in terms of dollars saved per each dollar invested in high-quality programs range from about $4 to $7 (Galinsky and Friedman 1993; Schweinhart, Barnes and Weikart

1993). And the payoff—both to the child and to society—appears to be most dramatic for the group of children most likely to miss out on the opportunity, namely, poor children.

This report is based on the premise that we need to develop opportunities for cognitive development and socialization for *all* U.S. children at the earliest possible ages in order to contribute to an improvement in the type of dismal conditions cited above. We already know that quality preschool education opportunities represent one proven way to increase the odds that young children will enter elementary school ready to learn and ready to interact positively with other children.

The problem, however, is that we have not devised a way to bring quality early childhood education opportunities to all families who desire such care for their children. Indeed, while Head Start has been shown to be effective in combining cognitive development, nutrition, and health screening, it is restricted to the poor, and only about three of ten children living in poverty actually participate.

Most of the debate over early childhood education and development tends to be "marginalist" in nature. Strategies are suggested that may ameliorate part of the problem, but little is on the table that would likely lead to a breakthrough in the financing or delivery of such programs. Furthermore, these strategies tend to continue to view lower-income children as a group to be treated separately, walled off from the rest of society through a set of means-tested categorical social programs. For example, efforts to raise Head Start funding undoubtedly are helpful for some children, and policies to raise the Earned Income Tax Credit could provide lower-income working families with a little more disposable income (some of which might help defray expenses for preschool). These and other responses are certainly important, but they are really just "baby steps" when a giant leap forward is what is necessary.

Such a giant leap would almost certainly require an additional public investment in early education. The size of that investment can vary enormously, depending upon the scope of

the effort, the number of children who participate, and the services that are folded into a preschool curriculum. (Detailed estimates of such an investment are provided in Section IX.) But the specific size notwithstanding, even marginal increases in public dollars for early education could be a "hard sell" to the Congress, the states, and localities across the country that are advocating less government spending and more personal responsibility.

Additional public investments in child care and early childhood education, however, should not be viewed as antithetical to these objectives. On the contrary, *high-quality child care and early education programs that are affordable and accessible can actually promote long-term savings in government outlays and personal responsibility*. First, the availability of affordable child care and early childhood education programs is a prerequisite to a successful effort to help lower-income people make the transition from welfare to work. In this case, dollars spent in one part of federal and state budgets will yield savings in other parts of these budgets. Second, broader participation in early childhood education will help many parents—not just those now on welfare—obtain full-time jobs. Third, appropriate investments in early childhood education will better prepare children for the academic and social demands of elementary and secondary education. This will lead to a better educated population, yielding dividends that go well beyond reduced outlays for welfare.

In order to obtain these long-term payouts, we need to make near-term investments. Those investments must be fully financed, and this report suggests alternative financing mechanisms. It also outlines specific strategies for expanding quality early childhood education broadly among the U.S. populace, and through this step, to help bring lower-income children into the social and economic mainstream. The study team investigates three model approaches to this expansion: 1) a public school-based program with a core component that is free to all; 2) a public school-based program that requires sliding scale fees for all but the poor and near-poor; and 3) a system of publicly-sponsored vouchers for private preschool programs that builds on the current landscape of early childhood education in this country. Each of these models is voluntary; under no circumstances would families be *required* to enroll their children in preschool programs.

The target group under review is three- and four-year old children —the group that will soon enter formal educational institutions, and the group that can benefit greatly from the relationships with teachers and peers that are fostered in high-quality center-based programs. While there is clearly a need for comparable high-quality programs for infants and toddlers under the age of three, they are not the focus of this report.

The three approaches listed above were selected for review and analysis because they cover the "public/private" spectrum, yet each has the potential to move the country in the same direction. The models will be developed to meet the following three goals:

1. Early childhood education opportunities must be universal; while they might not necessarily be free at the point of service, cost should not pose a significant barrier to enrollment.

2. Children should be "ready to learn" and on equal footing when they enter kindergarten.

3. Special services should be available for "at-risk" children. For the purposes of early childhood education, the General Accounting Office (July 1993) defines "at-risk" children as those who, while not necessarily poor, face significant obstacles to achieving academic success in school; these include children who live in immigrant families, linguistically isolated households, single parent families, families where the most educated parent has less than a high school diploma, or where parents do not work.

This report is divided into several different sections. First, we provide a discussion of the values and benefits associated with early childhood education programs. These benefits clearly are not available to the majority of children in the country under our current preschool system. Section III provides a description of the workings of a public school-based system for three- and four-year olds. It discusses the design features that would need to be considered if such a system were implemented, regardless of whether the program were free at the point of service, or required out-of-pocket payments for support. Case studies of

Independence, Missouri, Braxton County, West Virginia, and France, presented in Sections IV, V, and VI offer interesting insights into the workings of a public school-based model. The section on France is particularly enlightening, since that country boasts the most extensive preschool program in the world, serving virtually all of the country's three- to five-year olds.

Section VII shifts the discussion to a preschool program based on publicly funded vouchers provided to poor and near-poor families that could be used in approved, private preschool settings. A brief case study (Section VIII) of how one state runs this type of program follows.

Section IX provides estimates of what it would cost to operate each of the three models developed in this report. Clearly there are enormous differences in the cost of each of the programs, as well as their likely participation rates. Section X offers some guidance as to how these programs could be financed. Finally, Sections XI and XII offer analysis and concluding remarks about the merits and tradeoffs associated with each of the options.

## II. IMPORTANCE AND AVAILABILITY OF EARLY CHILDHOOD EDUCATION PROGRAMS

Many of America's children lack "school readiness" when they enter kindergarten at age five or six. This lack of readiness has a direct impact on a child's ability to meet academic demands and develop appropriate social skills. Because many incoming kindergartners have difficulty adjusting to school, over 70 percent of public schools either retain children in kindergarten and/or assign children to extra-year programs such as special transition classes (Love, et al. 1992).

With such a wide variation in school readiness, educators have had a difficult time meeting the needs of all children. Children who need extra time and personalized attention to "catch up" may be overlooked; at the same time, children who have had significant pre-kindergarten experience and consequently are better prepared for the kindergarten classroom may find their teachers spending far more time with children who require extra help. This could result in less instruction and fewer developmental activities to stimulate these children.

In 1990, these types of problems provided the impetus for an effort by President Bush and the 50 state governors to develop six national education goals to be met by the year 2000. The first national goal is that all children should be ready to learn when they enter school. A report by the National Education Goals Panel lays out five dimensions of school readiness: 1) physical well-being and motor development; 2) social and emotional development; 3) approaches toward learning; 4) language usage; and 5) cognitive and general knowledge ( ıtional Education Goals Panel 1993).

There is evidence that many children from low-income families acquire these skills when they are enrolled in formal pre-kindergarten programs. Research on high-quality early childhood education programs confirms that preschool experience has positive short- and long-term results, especially for children in lower-income groups (Galinsky and Friedman

1993). These programs help improve children's intellectual and social performance as they begin school, and can help young people achieve greater socioeconomic success and social responsibility. The General Accounting Office (April 1994) has also reported that children who receive high-quality preschool services have higher test scores in elementary school, fewer grade retentions, and reduced placements in special education programs.

One of the most controversial and widely cited studies of the effects of early childhood education is the Perry Preschool Project, a longitudinal, well-designed and well-controlled study of 123 children from low-income, African American families who lived near Perry Elementary School in Ypsilanti, Michigan. In the 1960s, these children were randomly assigned to program and control groups—the program group received a high-quality preschool program, and the control group received no preschool. The children were followed carefully over the years, with recent data available as the participants turn 27 years old. The results are remarkable.

According to the most recent review of the results of the study (Schweinhart, Barnes, and Weikart 1993), comparisons between the program and control groups reveal that the program group had significantly:

- higher monthly earnings at age 27;
- higher percentages of home ownership and second car ownership;
- higher levels of schooling completed;
- lower percentages receiving social services at some time in the previous ten years;
- fewer arrests by age 27; and
- higher levels of general literacy (at age 19) and school achievement (at age 14).

Also, significantly more females in the program were married at age 27, and significantly fewer of the births to females in the program occurred while they were not married. Several other studies found somewhat smaller, but still positive effects of early childhood education (Galinsky and Friedman 1993).

Despite the evidence pointing to many benefits of early education for three- and four-year olds, only about 40 percent of all children entering kindergarten have had some type of formal prekindergarten experience (General Accounting Office July 1993). In certain high-poverty areas, as few as 25 percent of children have educational experiences prior to kindergarten (Love, et al. 1992). But in many other countries, enrollment rates are far higher. In France, for example, virtually *all* three- and four-year olds attend preschool, and in Italy, enrollment stands at about 90 percent (Kamerman 1991). In Israel, too, nearly all children attend preschool (The National Council for the Child 1992).

These relatively low rates of enrollment in the U.S. may be a reflection of the current system's weaknesses in three critical areas: availability, affordability, and overall qu.. y. The need for *child care* is on the rise, with estimates that within just a few years two-thirds of all children under the age of six will have working mothers (Galinsky and Friedman 1993). At about the time that a child turns three years old, most parents prefer to enroll their children in *center-based programs* so that the child has expanded learning and developmental opportunities (Mitchell, Cooperstein and Larner 1992). But in many cities and neighborhoods, there just aren't enough preschool programs or spaces. In some of these low-supply areas, long waiting lists for applicants can be quite common.

A second barrier to finding high-quality early childhood education and development programs is the cost of such care. In 1990, the average fee paid by parents for full-time center-based care was about $3,200 (not including subsidies), although this figure masks substantial variation regionally, by income levels, and among different types of center programs (Committee for Economic Development 1993). Parents' fees generally cover about 75 percent of the cost of center-based care. This is frequently too expensive for lower- or even middle-income families.

The third weakness in the current preschool system is related to poor or uneven quality. The National Association for the Education of Young Children (NAEYC) has developed standard measures for quality of group preschool programs, as well as an accreditation

system for center-based care. These standards pertain to certain aspects of program design including number of children per group, teacher/child ratio, and education and training of the center staff. NAEYC estimates that the cost of good quality center-based care *should* range from about $6,300 to $8,300 (Galinsky and Friedman 1993). This tremendous difference in estimated costs and average 1990 fees reflects the very low salaries paid to center staff, which are prevalent in poor quality programs. These issues of staff salaries, turnover, and quality are discussed in later sections of this report.

**Personal Spending on Child Care and Early Childhood Education**

There is a thriving and diverse child care market serving the needs of millions of American families. Many middle- and upper-income families who are willing and able to spend large sums of money—in many cases, upwards of $8,000 a year—will find a variety of early childhood education and development options that meet the criteria of availability and quality. These include center-based programs, Montessori schools, church-based and/or affiliated programs, and both private and public school-based programs.

The largest source of funding for early education in this country comes from out-of-pocket payments by parents directly to preschool programs and other caregivers. According to a report by the Census Bureau, in 1991 American families spent $21.8 billion on early education and child care services for children under the age of five (Casper, Hawkins and O'Connell 1994). This figure, however, *understates* total payments by families for these services, because the $21.8 billion captures payments only from households in which the mother works outside of the home. Updating this figure using the CPI raises it to $23.1 billion in 1994.

Even conceding that the $23.1 billion number is a low estimate, one can nevertheless begin to appreciate the level of personal spending that currently is associated with early education and child care services in this country. Assuming that three- and four-year olds command a disproportionate share of the spending (since the use of such services increases as the

child ages), *personal spending for three- and four-year olds in 1994 is estimated to be approximately $13.9 billion (or 60 percent of the money spent on children under age five).*

**Limitations for the Poor**

While a considerable amount of personal income is currently circulated throughout the (mostly) private child care/education sector, too often a family's options diminish as their income level decreases. Generally, lower-income parents—with fewer resources at their disposal—are limited in their choice of arrangements for their children.

"Relative" care, either from a grandparent or other family member, is the most commonly used form of child care for lower-income parents (Mitchell, Cooperstein, and Larner 1992). Not surprisingly, low-income parents who do choose non-relative care spend on average a greater proportion of their income on these programs—about 23 percent of family income—than higher-income parents, who spend about 6 percent (Committee for Economic Development 1993).

Head Start is an option for some children but it serves only about 30 percent of eligible children, with very few three-year olds gaining entry (General Accounting Office May 1994). In fiscal year 1993, for example, fewer than half of all eligible four-year olds were enrolled in the Head Start program nationwide; at the same time, less than 20 percent of eligible three-year olds were enrolled. All together, about 650,000 three- and four-year olds attended Head Start programs in 1993 (U.S. Department of Health and Human Services 1994). Head Start does not serve the near-poor.

Even with recent improvements in funding, and a solid track record in providing a broad spectrum of development, educational, health, and nutrition services, Head Start is facing its own set of difficulties. For example, a 1994 review of the program cited problems associated with: 1) too few qualified staff to meet the complex needs of families; 2) the rising cost of service delivery; 3) the limited availability of community resources to provide

many services; and 4) uneven quality across individual center programs (General Accounting Office May 1994).

Some school-, center-, and church-based programs offer sliding-scale, income-based tuition payments, but there are generally not enough of these opportunities in the neighborhoods where needs are greatest. Also, there are a number of public programs targeted to low-income children (described in detail in Section X), but these, too, are grossly inadequate to meet the demand and need. And while some public programs are making child care and early education more accessible to poor children, those living in very high-poverty areas are less likely to be enrolled in these programs (Mitchell, Cooperstein and Larner 1992).

## III. DESIGN FEATURES AND ISSUES OF THE SCHOOL-BASED OPTION: MODELS 1 AND 2

One approach to expanding early childhood education is to build upon the existing public school system and extend schooling "downward" to begin at age three or four. This "pre-kindergarten" would be implemented and administered through existing public school districts across the country. It would be available to all children regardless of family income, although income might determine the cost to the family.

This approach is used in some other countries and in some school districts in the U.S. The school-based systems in Independence, Missouri, Braxton County, West Virginia, and France are described in the following sections. As is apparent from these case studies, the specific design features vary considerably from country to country and district to district. Furthermore, numerous factors that distinguish the U.S. from other nations require that particular design options be evaluated within the context of U.S. political, social, and financial circumstances. Following is an evaluation of the essential elements of a school-based early education program and the issues and options related to these elements. These elements include school and child participation, the initial phase-in plan, staffing issues, scheduling, site of the preschool, curriculum issues, and special services for at-risk children. Each of these elements is interrelated, and each has important financing implications.

### School And Child Participation

Two models for a public school-based system are developed in this report. Each is voluntary. Model 1 provides a core morning program that is free at the point of service to all three- and four-year olds, regardless of family ability to pay (afternoon wrap-around care would require sliding scale payments). Model 2 requires sliding scale payments from all families with incomes beyond 133 percent of poverty. Under both of these models, parents would decide whether to send their children to preschool; if they decided to enroll their children in a preschool program, they would continue to exercise choice with respect to type of program (e.g., public school programs, private and religious schools, other center- or home-

based care). Children would not be obligated to attend the public preschool program, but it would be available to interested families. Along with the option to attend available to all children, special efforts would be made to encourage and assist certain disadvantaged populations in enrolling in these school-based programs.

To make this plan a reality, however, such a voluntary system must be mandated to exist. In other words, school districts must be *required* to offer pre-kindergarten classes, wrap-around child care, and outreach services to enroll at-risk children, in addition to the kinds of educational and developmental programs they now offer to young children with disabilities. Without such a mandate, school districts could opt out of an early childhood education responsibility, leaving too many children without access to these programs, and less likely to be ready to learn upon entering kindergarten.

**Phase-In Period**

Developing a universally accessible, public school-based early education program would take years to implement, and would not be inexpensive. Start-up expenses alone are likely to be quite high, and would include costs associated with preparing existing classrooms for three- and four-year olds or, when necessary, constructing new facilities, establishing standards, hiring and training teachers and aides, purchasing supplies, and educating the public about the new preschool system.

Estimates of the ongoing, operational costs of Models 1 and 2 are included in Section IX of this report. Regardless of the costs, however, such a vast increase in the number of young children attending public school-based preschool programs should not happen overnight. Preschools do exist within many public school systems; however, they provide a relatively small base upon which to build an entire system covering the majority of three- and four-year olds. They are primarily geared to four-year olds, whose capacity to follow directions, interact well with peers, and separate from parents is better developed.

For these reasons, a universal public school-based early education program should be phased in over a period of years (perhaps five). In the first year of operation, the program could be open to all interested four-year olds *and* at-risk three-year olds, with successively higher numbers of three-year olds included in the following years. At the end of the phase-in period, sufficient funding, physical plant capabilities, transportation arrangements, and other necessary resources should be in place to accommodate fully all interested three- and four-year olds.

## Staffing Issues

Perhaps the most critical decisions in designing a universal preschool program surround issues of educational and training qualifications of preschool staff, their salary levels, their composition (in terms of teachers, aides, and other staff), and ratios—the number of children per each teacher and support staff. These issues have an enormous impact on the quality of the experience, both for the children and the school's staff. They also have a significant impact on the cost of the program.

### Educational and Training Qualifications

Studies differ with respect to the content of the most desirable educational background for preschool teachers. At least one study favors early childhood training (Ruopp, et al. 1979) and another favors a more general college education (Whitebook, Howes and Phillips 1990). Nonetheless, most education experts would agree that education and training in a four-year college program improves the quality of teaching. (In France, preschool teachers generally have the equivalent of a master's degrees.) At the same time, quality can be enhanced through ongoing training and continuing education programs that focus on preschool experiences.

Currently, wide variations are seen in the education and training levels of preschool teachers in this country. While many hold master's degrees, others have far less education. Public school kindergarten teachers, however, are generally required to have a college degree; in

many states, they either have training beyond college, or are working toward master's degrees or other graduate training during the early part of their teaching careers.

Because the skill level required of preschool teachers is similar to that required of teachers of kindergarten and early grades in the public schools, comparable levels of training could be requisite for employment. Clearly, a well-educated staff will tend to push up the overall costs of the preschool program. This requirement could also have a ripple effect on the private preschool system, since it currently does not require that its teachers be as highly educated.

In fact, establishing a public school-based preschool program would likely result in a shift of many teachers and staff from the private sector to the public sector. There are at least two ways to reconcile the disparity between higher educational requirements in the new public program, and the levels of teachers currently working in private preschools. First, teachers could be conditionally hired within the public school preschool system, and given a period of time (perhaps 5-10 years) to complete the educational requirements. Or, teachers initially hired within the public school system could substitute years of experience for years of education for some portion of the educational requirement.

Teachers who were unwilling or unable to complete the educational requirements for public school-based preschool could remain in private settings, or could be hired by public schools as teachers' aides or assistants. School districts should have flexibility in determining what educational and training requirements would apply to teachers' aides and other classroom assistants. Some districts, for example, could develop a well-run parent-participation program with volunteer and/or paid parents, along the Head Start model that makes extensive use of parent aides. This program provides valuable training for parents who may wish to pursue work as permanent classroom aides; it also holds down the overall cost of the Head Start program. Other districts might develop more formal training requirements for aides and assistants.

Salaries

A well-designed preschool program should include mechanisms to attract and retain qualified personnel. Too many preschools now suffer from high teacher turnover—due in large part to low wages and poor working conditions. Children in programs with high staff turnover have been found to achieve less in social and language development (Whitebook, Howes, and Phillips 1990).

If preschool teachers are required to be as well-trained and educated as other public school teachers, they should be paid according to the same salary schedules and be entitled to the same benefits. Pegging preschool salaries to public school teacher schedules will in most cases raise the wage rates for teachers in early childhood education, and should go far toward reducing the teacher turnover commonly seen in center-based preschool programs. It will also cause the overall costs of preschool programs to increase, in some cases by 50 to 100 percent (Galinsky and Friedman 1993).

Staff Mix

Preschools must also decide how to use their staff most efficiently and effectively for the benefit of their young patrons. Most preschool programs use a combination of school directors, teachers, assistant teachers, and teaching aides to respond to the educational and developmental needs the children. But the mix of these professionals working with groups of children varies greatly from preschool to preschool.

One way to hold down the costs of preschool is to employ more teaching assistants, who are paid at lower rates and generally have less education and training than teachers. But there are tradeoffs in terms of quality in reducing the qualifications of the overall preschool staff and lowering the standards for employment. Again, kindergarten classrooms could provide a model for developing an appropriate staff mix for a new public preschool program.

Staffing Ratios

Teacher/pupil ratios are a concern in staffing a preschool program, since they have enormous implications for quality and safety. The National Association for the Education of Young Children (NAEYC) recommends that classes of three- or four-year olds be no larger than 20, with about 7 to 10 children per preschool staff member (National Association for the Education of Young Children 1991). These ratios allow children to be closely supervised and receive personal attention.

The French preschool system has a different approach to teacher/pupil ratios. Preschool programs in France average one teacher to 27 children, with one aide shared by two or three classes. While this arrangement appears to work well in France, it may not be appropriate or accepted in the United States. Many state licensing requirements for school-based, church, or center-based programs limit the number of children per adult to no more than 10 for ages three and four. Radically changing these standards to a French-type system would likely meet heavy opposition from children's advocates and parents.

Schedules

Early childhood education programs are first and foremost centers of learning and development—they are not child care centers. But this does not erase the fact that families are in need of high-quality child care for the entire working day. In an effort to meet both of these related needs, public school-based early childhood education programs should be designed with flexible schedules to allow wrap-around child care as a complement to the core preschool programs. As with many existing preschools, doors could open as early as 6:00 am, although 7:30 may be adequate for most parents, and doors could close at about 6:00 pm. This full-day schedule accommodates the needs of many working parents.

Depending upon the demand in various districts, preschools could accommodate different schedules, both on a daily and yearly basis. For example, only one or two schools might have a year-round preschool program that includes a summer session; demand might not exceed the capacity of those few sites. Or, various preschools could operate wrap-around

programs, with others operational only during the "school day" (until about 3:00 pm). This could reduce cost by concentrating need within the fewest number of sites, although safeguards would have to be in place to make certain that children in need had access to these programs, and transportation was available to accommodate the shift in utilization. The goal here is to provide necessary services to those families that need them, without overloading the public system in the process.

We should note that this type of scheduling is actually well beyond existing elementary school hours—typically 8:30 am to 3:00 pm for grades one and above, with kindergartners attending a morning *or* afternoon session. Schools generally do not provide extended child care before or after the school day. Parents in need of additional child care services must arrange for their children to be transported to another location if the school district does not offer this service as part of its busing arrangements.

**Site of the Preschool**

Early childhood education programs can either be located on the school campus, or they can be housed in a separate setting. Locating the program on the school grounds has a number of advantages. Existing elementary school buildings will generally be scaled to the appropriate size for small children. For example, bathroom fixtures are more likely to be accessible to very young children. An existing classroom can be converted into the preschool room, unused space can be renovated, or temporary buildings located outside the main building can have easy access to the rooms in the main building. The common use areas, such as the playground, cafeteria, rest rooms, and multipurpose rooms should be easily accessible to the smaller children, in most cases. Many of the safety issues, such as fire escape routes, will already have been addressed. School-based transportation may lessen the need for parents to find a way to get their children to the program, and may encourage participation.

Locating the preschool on the school grounds also provides a continuity and permanence for the children who will be attending the same school from age three or four up until age

ten or higher. The sense of neighborhood and community is reinforced through this design. Parents with several younger children will likely have one drop-off and pick-up location for all their children. Additionally, communication between the preschool staff and the grade school staff may be facilitated when they are based in the same location. This would have particular benefits for children with special needs, since a preschool teacher could more easily discuss and recommend successful interventions with kindergarten and grade school teachers.

Against these important advantages are a few drawbacks. There may be objections of noise and other disruptions from upper grade teachers. Additionally, in some cases the physical plant itself may not be appropriate for the preschool, either on a part-year or full-year basis. Buildings that are not air-conditioned, for example, may not be usable in the summer months. Extensive renovations may have to be done, or there just might not be any room available in the school. School transportation may raise safety issues for three- and four-year olds. And parents may be reluctant to have their small children mix with the bigger kids.

An alternative is to locate the preschool away from the school campus, but have it operated or contracted out by the schools. The physical plant could be constructed or an existing building renovated solely to fit the needs of three- and four-year olds. This approach, however, seems to pose more negatives than positives. There would be less opportunity for staff to interact on child development issues, parents with several children may have to take them to many drop-off locations each day, and the cost of constructing or renovating facilities may be prohibitive.

A compromise position might entail locating the preschool program (perhaps with the kindergarten classes) in a separate section or wing of the school, and keeping all preschool activities within that designated area. This would serve to contain the noise of younger children's activities, while at the same time giving them (and their parents) a sense of continuity and comfort. They would be removed from the bigger children, but still close enough to facilitate cooperation and communication among teachers.

**Teaching Method/Curriculum**

Several important studies of early childhood education techniques and methods have found that a "developmentally appropriate" teaching method is best for children ages three to five (Galinsky and Friedman 1993). For example, the findings of the High/Scope Preschool Curriculum Comparison stressed the importance of a child-initiated curriculum (Schweinhart, Weikart, and Larner 1986). This study compared three early childhood curriculum approaches—a programmed-learning approach, a High/Scope curriculum, and a child-centered, nursery school curriculum.

The programmed-learning approach sought to efficiently teach academic skills by scripting the teacher's role and encouraging frequent responses by children. The child-centered, nursery school approach was the opposite of the direct instruction seen in the programmed-learning approach; it allowed children to initiate their own play activities, with the teacher keeping them safe from harm and responding to children's requests for guidance. In the third approach, the High/Scope curriculum, children initiated their own activities, but the teacher also maintained an active role by arranging the room to promote children's active learning, making plans and reviewing activities with children, interacting with individual children throughout the program day, and leading small- and large-group sessions.

The study concluded that child-initiated learning programs help to foster positive social development better than programmed-learning instruction programs, which encourage dependence at a time when it is important for children to begin to develop self-reliance (High/Scope Educational Research Foundation 1994). Other studies also confirm the value of a developmentally appropriate curriculum that allows a child to exhibit independence within the secure sphere of a strong and supportive teacher who does not exert excessive pressure to perform (Vandell, Henderson and Wilson 1988; Elkind 1987). The High/Scope-based curriculum has been adopted by many preschool programs, by programs for disabled children, and by many Head Start programs.

## Enhanced Services Targeted Toward Children At Risk

Many preschool models in the country and abroad include a number of targeted services for poor children, or other children who are at risk of school failure. The French system has an innovative and active program to reach out to such children and their families, and provide them with additional resources to facilitate their entire educational experience. In this country, the Head Start program provides a number of services that are not technically educational or child-care related. These services include health services and referrals, dental services, speech and hearing assessment, screening for disability, social services, and programs to involve parents. Some programs provide health and social services directly to the child, while others rely on referrals to appropriate health and social welfare professionals. Head Start and other subsidized programs can also provide meals and snacks, according to the hours of attendance, that may be "free" to the child at the preschool. (Because of a subsidized food program available through the Department of Agriculture, the preschool provides the meals and can be reimbursed for low-income enrollees. Consequently, these costs are not passed along to the family.) These services can be extremely helpful to poor and at-risk children. They can smooth out the transition between home and school, provide necessary immunizations and other health-related screening and treatments, and respond to the needs of parents and other family members. All of these services support the overall development of the child.

The theory behind the inclusion of these enhanced services is that low-income children should be able to obtain the same set of comprehensive services that they would obtain on their own if income were not a barrier. Access to health screening, for example, is not routinely provided for nonsubsidized preschoolers; the assumption is that families will either be insured for physician visits or will have the financial resources to use out-of-pocket dollars to purchase these services. Low-income families frequently do not have these options.

The Head Start program, because of the low-income levels of its enrolled population, can take advantage of Medicaid services, including Medicaid's comprehensive package of wrap-

around care found in the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program. Private programs generally cannot tap into Medicaid, although they may use certain federal funds for some of these services. With the relatively low reimbursement rates associated with most of the federal and state funding options, however, it is unlikely that the majority of subsidized preschoolers are also obtaining the health-related and social services that could be so beneficial.

A public school-based preschool program can build upon these models. Both Models 1 and 2 would include such enhanced services for all children determined to be at risk of school failure.

## IV. CASE STUDY: BRAXTON COUNTY, WEST VIRGINIA

### Introduction

Braxton County, West Virginia has implemented a model of universal early childhood education run by a local public school district. In 1983 the school system began an effort to enroll all four-year-old children in a preschool program operated through the county's six elementary schools. This program is significant because it blends Head Start children with others across the income spectrum while retaining the Head Start program.

While only four-year olds are enrolled in the program on a daily basis, there are special efforts to reach out to a limited number of three-year olds as well. As part of the Head Start program, ten families with three-year olds are visited once a week in their homes by a social worker; twice a month, the three-year olds actually attend preschool. The County hopes to offer this service to many more three-year olds over the next few years.

Braxton County is located in the center of West Virginia and is a rural county with a few very small towns, including Gassaway and the county seat of Sutton, each with just a little over 1,000 residents. A total of 180 children are participating in the program in the 1994-95 school year, of whom 104 are enrolled in the Head Start program.

The Braxton County preschool program has adopted the High/Scope curriculum for use in its classrooms; this curriculum encourages children to initiate their own learning experiences with the guidance of supportive adults (High/Scope Educational Research Foundation 1994). In 1993, all six elementary schools in the district participated in the preschool program. Open enrollment is the policy at each school site, with no child turned away. Dr. Kenna Seal, Superintendent of the Braxton County schools and a driving force behind the preschool initiative, estimates that the program serves 80 percent of the children eligible to attend. There are no private full-day preschool programs in the county.

The Braxton County program has received much praise and recognition from state officials. It has received mixed reviews from Head Start, however. It appears to be well regarded by national office representatives, but is sometimes criticized by regional officials. The criticism has mostly involved losing the Head Start identity by melding eligible children with others in the community. What some observe as the essential strength of the program has raised "turf" issues at Head Start.

## Characteristics of the Program

### Staffing

Every preschool teacher in Braxton County has graduated from an accredited college and is certified as an early childhood education teacher. In addition to a teacher, each class has a teacher's aide who is required to have a high school diploma, and be able to pass a test on language skills. Starting salaries for teachers are about $21,000 per year, and the top salary for the most experienced teachers is $36,000 per year. Salaries of the aides range from $12,000-$16,000 per year, with the higher pay going to aides with college credits.

The preschool program generally operates with a pupil/staff ratio of ten to one, although in a few cases, the ratio might go as high as twelve to one (this counts aides as staff). Teachers with the heavier loads usually receive slightly higher salaries. Since classrooms typically have two parent volunteers, however, the child/adult ratio is more commonly about five or six to one.

In Braxton County, preschool positions are considered priority slots for teachers. The positions are competitive, with some highly qualified and experienced teachers in effect "bidding" into preschool teacher slots. Often, counties tend to take a different approach with their preschool programs, placing low-performing teachers, or even those about to be "riffed," into preschool positions.

Our site visit included one-on-one discussions with teachers. The teachers appeared to be knowledgeable and very committed to helping children learn and develop.

Scheduling

The preschool program operates from early September through May, and is open from 7:30 am to 3:15 pm. Kindergarten classes also follow this full-day schedule, and this is an important feature of the Braxton County program. Students become used to being in school most of the day at an early age, and do not have to fall back to a half-time schedule a year later. Extended day care is not provided by the school district for children after kindergarten, but the school will provide transportation to other day care providers, including a local hospital day care program.

A typical school day for preschoolers begins with free play in the school gym from 7:30 to 8:00. Then they go to their classrooms, and for the next 15 minutes, they unload their book bags and talk. Between 8:15 and 8:30, the children move to music to relax and get "limbered up." After five minutes of "housekeeping," the kids then go to the gym for a half hour of physical education. This is followed by breakfast. Between 9:30 and 11:00, the children engage in the key activities comprising some of the core elements of the High/Scope curriculum, including working with colors, shapes, numbers, letters, or other developmental activities. Children have considerable flexibility in selecting activities during this period. The teachers reserve about five minutes at the end of the period for review as a group. This schedule changes to accommodate field trips, which occasionally include older children as well.

The next activity is a 30-minute recess period. This is followed by lunchtime which, held in the classroom, is a learning experience as well as fun. Each child is responsible for one specific task that varies from day to day. Some set the table, others help serve the food, while a few others help with cleanup. These responsibilities are taken seriously, and the children seem proud of themselves for doing their chores. Lunchtime provides a comfortable atmosphere for them to chatter and socialize, and is very different from the more structured lunch in the cafeteria for the older children, where regimentation and "don't make any noise" rules seem to limit the experience to one of "eat and move on."

Free and reduced-price lunches are available to about 60 percent of the children enrolled in the preschool program. Since obtaining good nutrition is a problem in the district, this is a very important feature of the program.

After lunch, the children have 15-20 minutes for free play, and then it is time to brush their teeth and engage in some small-group activities. Afterwards, the children nap, have a snack, and then depart.

Program Cost and Financing

The cost of the preschool program has been estimated at about $3,700-$3,800 per child per year, with all of the financing provided from within the existing school system budget. Families paid no additional fees for their children to attend the Braxton County preschool program. This was possible because declining enrollment in elementary school freed up funding to be redeployed to initiate the preschool program. In addition, Head Start funding was retained, so that the money required from the school budget was just the amount needed to cover the cost of serving the non-Head Start children. In Braxton County, a little over half of the participating preschool students are in the Head Start program, while in other, larger school districts, this proportion will be much lower, and proportionately more money would need to be raised from within the local school budget, by raising local taxes or other means.

Nonetheless, Braxton County is not the only school jurisdiction facing declining enrollment. Many urban areas are in the same situation. Of course, in some cases, funding is provided on a per capita basis, and as enrollment declines, so does the funding. But Braxton County's approach may point the way to a method of "internal financing" that some cities could use to redeploy funding from elementary and secondary school budgets.

Transportation

Braxton County is spread out, and some of the children live in very remote places. Yet the bus system makes an effort to reach every child, and kids are transported, where safety conditions permit, in all kinds of weather. Four-year olds participating in the preschool program ride the same school buses as the older children. This makes them feel that they are part of the overall school program, and not in some special situation or category. It also makes the transition to kindergarten smoother.

The three-year-olds who come to school two days per month may also ride the bus, and sometimes they are accompanied by an older sibling. Many of these children, however, are driven to school by their parents. The county also contracts with private owners of four-wheel drive vehicles to pick up children in remote areas, particularly in bad weather.

Braxton County officials believe that riding the bus is part of the school experience, and helps differentiate this program from others by further integrating younger and older children. They have had some criticism from Head Start officials for not labeling the buses as "Head Start buses," using instead regular school buses. This criticism was deflected and overcome, as County officials felt that one of the strengths of the program was to get away from labeling lower-income children.

Outreach to Disadvantaged Children

A special effort is made in Braxton County to reach out to disadvantaged children and to help get them ready for school. First, as noted earlier, the pilot program for three-year olds, which now targets families who live in rural, disadvantaged areas, brings the children into school a couple of days a month and helps orient them to classrooms and to socializing with other children their age. They can be "grown up" by eating lunch at school and learning new responsibilities. Parents also get a chance to spend some time at the school, and some may stay with their children through the day. Others come for an hour or so, and this helps them feel comfortable with the school and the preschool program.

One of the most impressive parts of the overall preschool program involves the weekly home visits to the families of three-year-olds. Social workers making these visits try to help parents provide a healthy and safe environment for their children and to introduce them to the basic building blocks of cognitive development. Yet, they try to do this in a way that is not insulting or demeaning to the parents. This often requires finesse and personal skills.

The program, which has been extremely effective in terms of both the home and school visits, is likely to be extended to the rest of the county. Currently, it operates in only one of the six preschool centers, in large part because of space limitations in the centers. Arrangements are now underway to make available the space necessary to accommodate the three-year olds in each of the county's preschools.

*Nutrition*

Social workers are following the Bowdoin program, which helps teach parents how to use things in their homes as learning devices. A good example is the idea called "Fun With Sandwiches." The simple act of making a peanut butter and jelly sandwich can be used by a parent as a fun learning device for the child. Starting with counting the two pieces of bread, and continuing with the number of corners on the sandwich, or how full the jars are, the Bowdoin method can actually be used to help a parent teach 25 or more word meanings and a few concepts about numbers.

Other little experiments in the home might involve filling an empty glass with water or milk, working with pots and pans, and cooking a meal. These activities can be used as learning devices for the child. The home visitor will introduce parents to these learning tools, walk them through an example, and leave them with instruction materials.

Home visits also present an opportunity for the social worker to help parents improve nutrition at home. This is a very big problem in Braxton County, according to the officials in charge of the program. One technique used is for the social worker to bring a nutritious lunch with her on one of the first visits. The challenge is to instruct without offending. The

lunch is used as an opportunity to talk with the parent about nutrition, and provide some examples of healthy and unhealthy diets. The advantages of low-sodium and low-fat diets are explained, along with the importance of including items from different food groups. Social workers may also bring menus for other lunches and for breakfasts, and make recommendations for healthy and balanced dinners.

Other techniques to enhance nutrition include the circulation of a newsletter that shares recipes, and an emergency food bank. In addition, the outreach effort includes a monthly meeting of parents, and arrangements have been made to bring a nutritionist to some of these meetings to help educate parents.

One interesting anecdote illustrates just how far social workers will go to improve the home situation. One social worker observed that a family was not eating properly in large part because they had no stove. She searched the stores and found a stove that was affordable to the family, and arranged for it to be delivered to the home.

*Health Care*

Another area of need that is emphasized strongly in the Braxton County program is preventive health care. In a visit to the County Health Department, we observed children in the four-year-old program coming in for thorough check-ups, conducted by physicians. The children are brought to the health center in school buses, and parents are notified if any health problems or conditions are discovered. An effort to immunize as many three-year old children as possible is also undertaken. Social workers take health histories of the family on home visits. They may also arrange for, or actually provide, transportation to a doctor's office.

Recently, the Braxton County public school system became licensed through a certificate-of-need as a behavioral health center. This is a very unusual, if not unique model of health care delivery, in which the county will provide, through the school system, such services as psychological evaluations, speech therapy, and occupational therapy. The county will be

reimbursed by Medicaid and by private insurers. The school system will divide responsibilities with a local mental health center, which will take the more severe cases of mental illness. The focus of the school system's efforts will be on early intervention, treatment, and referrals to appropriate services. School principals will serve as case managers.

*Eligibility for Government Programs and Interagency Cooperation*

An important part of the social worker's responsibility is to determine the government programs for which a family may qualify. Among others, these might include Medicaid, WIC, Food Stamps, and the Supplemental Security Income (SSI) program.

The Braxton County outreach team also places considerable emphasis on adult education. Many parents have not completed high school, and illiteracy rates are significant. A major effort (that includes tutoring) goes toward helping the parents get their GED certificates. Indeed, the home visits are often used as much to begin to educate and train the parents as to start the education of the children. In this program, the two are believed to go hand-in-hand and to be mutually reinforcing. Recently, one of the grandfathers of a preschool-age child got his GED, and this was a source of real family pride.

In this regard, the county helps parents determine if they are qualified for Pell grants providing financial assistance for higher education. There is an extension campus of a college nearby, and a number of parents have enrolled to further their education.

The County tries to coordinate the work of various social and health care agencies relating to school-age children. A "Kiddy Fair" is held once a month, at which representatives from several different agencies come together to jointly screen for problems and recommend solutions. Participating agencies include those responsible for health, mental health, hospitals, and schools. Advertising through flyers and newspaper ads helps bring people to the Fair.

## Conclusion

The Braxton County preschool program is successfully integrating children across socioeconomic categories. Three- and four-year olds from very impoverished rural backgrounds are joining in with middle-class children in an environment that stresses cognitive development, maturity, and socialization.

The commitment and enthusiasm of teachers, administrators, and parents to a successful program was evident in our site visit. Equally important is the multi-faceted outreach program that combines parent education, training, teaching, and screening into an effective strategy for preparing children for a successful school experience. These elements combine with a high-quality curriculum to produce a good bridge between the toddler years and the kindergarten and elementary school years.

Whether the Braxton County experience can be replicated on a broader scale is not yet clear. The success of this program may result in part from its relatively small scale and the fact that it was able to be funded internally through savings arising from declining enrollment. Nevertheless, this program illustrates that a model of universal public school-based preschool can work in the real world.

## V. CASE STUDY: PRESCHOOL PROGRAMS IN INDEPENDENCE, MISSOURI

In 1990, the population of Independence Missouri was about 100,000; approximately 1,700 three- and four-year old children reside in the Independence school district. Nearly one-fourth of the district's families live below the federal poverty level. The Independence school district has 13 elementary schools serving over 6,100 students.

### School of the 21st Century Program

About seven years ago, the Independence, Missouri school district began working with Edward Zigler and colleagues from the Bush Center for Child Development and Social Policy at Yale University to implement a pilot program of the School of the 21st Century model. The primary goal of the program is the optimal development of children from birth through age 12; one of the mechanisms used to reach this goal is public school-based, affordable, high-quality child care and early education for children (Zigler and Finn-Stevenson 1989). This school-based program, however, is not designed to replace all other existing forms of child care. Program officials stress the need to be sensitive to the concerns of other caregivers in the community by working to maintain an open, involved relationship with them.

The major components of the 21st Century program include on-site child care and early childhood education and development in the schools, as well as three child care outreach services—support for parents of newborns, training and support for family child care providers in the school district, and information and referral services.

The on-site, school-based component is intended to provide quality child care and early education for children ages three through 12 on a year-round basis. This includes the before, during, and after school care appropriate for each age group as well as full-time care for all children during school holidays. The 21st Century model specifies that these services be housed in the school building, but does not require that they be school-administered.

Independence has chosen to operate the program through its own school board, while other districts have contracted with Head Start, for example, to run the program.

Description of the Program

The Independence School of the 21st Century preschool program is located in eight of the district's 13 elementary schools. All children ages three and four in the school district are eligible to attend, although space may be limited. Approximately 500 children, or about one-third of eligible children in the district, are enrolled in the public school-based preschool program.

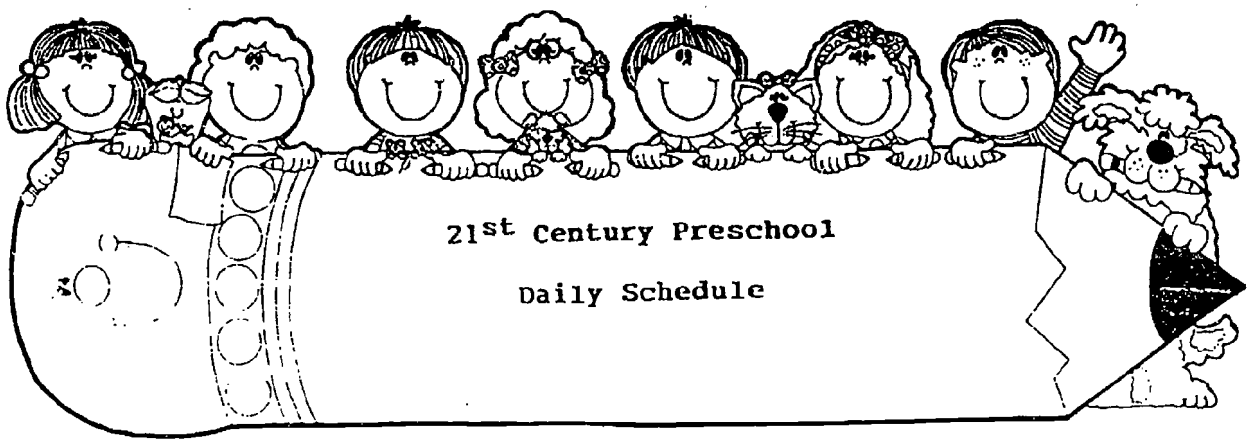
A needs assessment was conducted by principals of the 13 elementary schools to ascertain whether before and after school child care was needed by parents. The response was overwhelmingly in favor of such a program.

Facilities

Under the strong leadership of principals Al Van Iten and Roger Myers, the basement areas of Sycamore Elementary and Blackburn Elementary were remodeled to house the first two preschool sites. Our site visit included a stop at Sycamore Elementary, as well as William Southern Elementary, the newest preschool site to open, and Glendale Elementary. The Glendale site is housed in a modular unit located next to the school building, while the other two are within the school itself.

Schedules

A full-day/full-year schedule is operated by all preschool sites in the Independence system. Doors open at 6:30 am, and the children have ample opportunity throughout the day to engage in free play, read books, and socialize with the other children. Most group activities take place soon after breakfast. Lunch, rest time, snack time, and outside play (weather permitting) take up most of the afternoon. Story time and free play complete the day as children wait to be picked up by 6:00 pm. A sample schedule from the William Southern preschool program is included below.



# 21st Century Preschool

## Daily Schedule

6:30 **Center Opens** Parents and children are greeted upon arrival. Parents sign children in. Children choose activities or areas for play.

8:00 **Clean Up** Children pick up areas. Children wash hands for breakfast in hallway restrooms.

8:15 **Breakfast is Served!** Children eat breakfast in the cafeteria. Children may purchase cereal for 35¢ when it is not offered on the menu.

8:45 **Large Group** Children have sharing time as a large group.

9:00 **Pledge, School Song, Announcements**

9:05 **Small Groups** Children engage in small group activities related to the weekly theme. Activities may include stories, songs, finger plays, games, discussions, and art projects. Teachers may introduce "new", or "added" play choices for the day.

9:25 **Play Time** Children choose areas and activities. Children Children are asked to pick up before changing areas. Teachers interact with children: playing, asking questions, and assisting when needed. Children are encouraged to try new things, investigate, and make discoveries.

10:30 **Clean Up All Areas**

10:40 **Small Group Recall** Children share and recall day's activities in small groups. Projects, discoveries, and problems are shared and discussed.

11:00 **Outside Play**

11:50 **Wash Up for Lunch**

12:00 **Lunch!** Children eat lunch in the preschool room. Children serve themselves. Healthy choices and good manners are praised and encouraged.

1:00 **Rest Time** Children sleep or rest quietly on cots. Quiet music is played. Teachers rub backs and help children rest.

3:00 **Lights ON!** Children wake, potty, put on shoes and look at books or talk quietly while waiting for others.

3:45 **Snack Time!** Children eat snacks in the preschool room.

4:00 **Outside Play**

4:45 **Story Time** Children choose areas for play after the story.

5:00-6:00 **Play/Departure** Children play as parents are arriving. Parents sign children out. Teachers communicate with parents and relay information about child's day.

6:00 **Center Closed**

Staff

The Independence program does not require the program directors or other staff members to hold college degrees, although some of the teaching staff have completed college and graduate programs. Starting salaries are about $26,000 annually for site coordinators with training in early childhood education, and $23,000 for those without such training. Aides and other staff members have a beginning salary of $5.35 per hour. In-service training sessions led by instructors from a nearby community college, and programs developed by various site coordinators, are mandatory for all staff members; they are also encouraged to pursue additional training and work toward the Child Development Associate designation, a continuing education certificate. In total, there are about 180 employees connected with the 21st Century program in Independence.

The program is licensed by the State of Missouri's Division of Family Services, and is required to comply with state preschool teacher/pupil ratios that cannot exceed one adult per ten children. In practice, the ratio is often lower than the one to ten due to program capacity restrictions, and part-time help with overlapping, flexible hours.

Curriculum

The Independence School District uses Project Construct as its curriculum for preschoolers to grade three. Project Construct is a curriculum adopted by the State of Missouri that is based in the High/Scope curriculum, but is more thematic in nature. There are no report cards issued to students; instead, a portfolio of work is assembled for use in parent/teacher conferences and evaluation of student progress. The 21st Century site coordinators have the flexibility to tailor Project Construct to whatever manner best suits the children at each program site. In other words, there is no one set way of teaching. Children are evaluated on accomplishing goals in four domains: the sociomoral domain (social relationships and dispositions); the cognitive domain (logico-mathematical knowledge, physical knowledge, and conventional knowledge); the representational domain (symbolic development and language development); and the physical development domain (motor skills and health and safety). A copy of the principles of Project Construct follows this page.

*Project Construct*
## Goals for Students

### SOCIOMORAL DOMAIN

Social Relationships

- Build relationships of mutual trust and respect with adults.
- Build relationships with peers.
- Consider the perspectives of others.
- Negotiate and apply rules.

Dispositions

- Be curious.
- Take initiative.
- Be confident.
- Be creative.

### COGNITIVE DOMAIN

Logico-Mathematical Knowledge

- Construct classificatory relationships.
- Construct numerical relationships.
- Construct spatial and temporal relationships.

Physical Knowledge

- Act on objects and observe reactions.
- Act on objects to produce desired effects.

Conventional Knowledge

- Know personal information.
- Know about the community.
- Know conventional notations, manners, and customs.

### REPRESENTATIONAL DOMAIN

Symbolic Development

- Represent ideas and feelings through pretend play.
- Represent ideas and feelings through movement.
- Represent ideas and feelings through music.
- Represent ideas and feelings through art and construction.

Language Development

- Use language for a variety of functions.
- Expand and refine the form and organization of language.
- Construct meaning from language.
- Represent ideas and feelings through language.

### PHYSICAL DEVELOPMENT DOMAIN

Motor Skills

- Develop motor skills for personally meaningful purposes.

Health and Safety

- Develop healthy living practices.

Financing

In an effort to hold down costs to the families in its district, the Independence school board designed the School of the 21st Century according to several financial criteria. One of the most important issues decided by the board was that user fees would finance a significant portion of the costs of operation. Start-up costs, on the other hand, would be covered by grants that would never be charged back to individual programs. This separation helped to keep fees more affordable for local residents.

The district promised to provide a set of in-kind services to the program sites, such as space, utilities, janitorial and administrative services. In addition, several staff decisions applied to the program district-wide:

- Part-time, non-certified personnel would be used to staff the program as much as possible.
- Entry level staff would be paid minimum wage.
- Increases in salary would be tied to staff training and acquisition of the Child Development Associate credential.
- The program would become state licensed even though this would incur extra costs related to staffing patterns and fire, health and safety codes.
- Teacher/student ratios would be established that would assure program quality.

Start-up costs for the 21st Century program were provided by grants totaling $229,000. The Greater Kansas City Community Foundation and Affiliated Trusts made a three-year commitment in the amount of $167,000 to the development of the program. In addition, Independence received a $34,000 grant from the Hall Family Foundations for site renovations. And the Missouri Department of Elementary and Secondary Education made

grants totaling $28,000 to provide training and equipment for the before- and after-school portion of the program.

The fee for the preschool component is $63 per week per child, regardless of income. Independence established a scholarship fund for low-income families who may find even these moderate fees overly burdensome. This fund is limited, however, and does not serve many families in need. When scholarship money is not available and the family is unable to pay the fees, the child does not enroll in the program.

Other Preschool Programs and Support Services

The programs of the School of the 21st Century are complemented by other agencies that work in concert to meet the needs of children and families in Independence. An early childhood leadership team, composed of the directors of Head Start, Even Start, Early Intervention, Parents as Teachers, Project Reach, 21st Century, and others, meets on a monthly basis to discuss how their programs work, give referrals of students to one another, and evaluate results of actions taken. The goal of the group is to identify what the needs are of children and families in the 21st Century and the other programs, and to provide the best services possible from whatever agency can deliver them.

Several other preschool programs also assist young children in the Independence, Missouri area gain the skills necessary to enter kindergarten ready to learn.

- The Head Start program serves about 300 children in the Independence area and is located in Hanthorn School, a building no longer in use by the school district. The majority of children in Head Start attend a four hour, part-day program, although a few children are enrolled in a full-day session. Fees apply only to a portion of the full-day program.

- Even Start, the adult literacy program, has limited space available for preschoolers, and is also located in the Hanthorn School. The program operates year-round for

adults (and their preschool-aged children) who need help learning to read, preparing for the GED exam, etc. Parents must be on-site if the child is in the preschool, unless the parent is enrolled in class at the community college, or some other training program. Even Start works closely with the Parents as Teachers program to integrate a parenting component into all aspects of the Even Start program. Additionally, parents must spend one hour per day in the child's classroom learning and practicing hands-on parenting skills.

- Parents as Teachers (PAT), while geared primarily for children from birth through age three, also provides some educational support for three- to five-year olds and their families. PAT is a home-school-community based partnership designed to teach parents how to give their children the best possible learning environment. PAT provides personal, home visits to help parents understand each stage of their child's development, as well as group meetings for parents to get together, gain new insights, and share experiences, common concerns, and successes. A critical area of PAT is developmental screening with the goal of early detection of potential problems that may cause the child to have difficulties in school at a later date. PAT helps families link up with special services, if needed, that are beyond the scope of the program. Due to limited funding for the three- to five-year old group, however, PAT generally is able to run only group activities for these families. Additionally, PAT offers screening for developmental progress to all 21st Century program enrollees.

- An Early Intervention program targets children with special needs and works with Project Reach to provide occupational therapy, physical therapy, and language development services. About 65 children not enrolled in Head Start are in need of these services in the Independence area. The Early Intervention team will make referrals to Head Start if the family is income-eligible.

**Observations from Site Visit**

Several key observations were made during the site visit.

*Support From Parents:* Site coordinators initially found it necessary to educate parents on the goals of the 21st Century program, since some parents expected the program to be more academic in nature, perhaps because of its location on a school campus. Coordinators emphasize to parents that it is "learn through play" activities that are child-centered and directed. The quality of play is key, and site coordinators have found that it works well to mix the age groups for play activities. Coordinators now report that parents are overwhelmingly supportive of the program.

*Communication*: The Project Construct curriculum encourages constant communication among teachers, parents, and students in preschool through grade three. Because there are no formal report cards, teachers must rely on a team-like teaching approach to be consistent in helping children as they move up in the schools.

The principals of the schools are committed to the 21st Century program and have instilled this commitment in the staff, although some teachers have found it hard to adapt to this model. According to one site coordinator, a few teachers have either learned to adapt to the new way of schooling, or have left for other teaching jobs. Most teachers and other staff, however, are solidly behind the concept. The Director of Elementary Education estimates that about 80 percent of teachers and staff with preschool or school age children use the 21st Century program—a good bellwether for the program's success.

*Trust*: A critical component of the 21st Century program seems to be a sense of trust among the site coordinators, parents, and children. This trust is important in all of the preschool sites, but it is especially important at Sycamore Elementary where Project Reach, the program for the severely disabled, is located. Here, as in other sites, gaining trust from parents of special needs children, as well as other parents, and instilling confidence that

their children are well taken care of, is a major part of site coordinator's job. Parents believe that the school setting is a safe and nurturing environment for their children.

*Accountability:* One site coordinator reports that parents say that they like the accountability and administrative structure of the 21st Century preschool program. Parents are reassured that there are other professionals in the school building who understand children and their behavior, and that the principal is ultimately in charge at each site. If parents have a problem with the program, they can turn to a number of different people to get it resolved.

*Outreach to the Private Sector:* Several family day care providers indicated that they had received assistance from the 21st Century staff through the outreach services mission of the program. Providers can request referrals when they have a vacancy, and get assistance in thinking through licensing, safety, nutrition, and financing issues. Several providers interviewed said that their relationship with the program was good, and that they did not view the 21st Century program as an adversarial competitor. Many of these providers said they would have sent their own children to the program if they were not working at home.

*Dedicated Team:* The Early Childhood Leadership Team seems truly dedicated to meeting the needs of children and families in Independence. Several of them stressed how well they all get along, and how they respect each other's programs. The members of the team said they were very lucky to have achieved this type of relationship. This attitude was verified by an outsider, the director of the Child Abuse Prevention Association, who works closely with all the groups.

*Impression of Sites:* The 21st Century classrooms were generally bright and cheerful, with many activities available for the children. The classrooms at Sycamore Elementary had a slightly claustrophobic feel to them, as they were in the basement of the school and did not have any windows. The modular unit at Glendale Elementary was functional as a classroom site, but it did not have the same feel as the other two sites visited. The Glendale site felt more isolated from the rest of the school since it was in its own building and had its own

fenced-in playground area. There did not appear to be any shortage of things for the children to do, and all the staff appeared to be happy and enjoying their work.

*Keeping Costs Down:* The two principal challenges facing the district are keeping the cost of the program affordable and paying the staff a fair wage. The cost per week of the preschool program has gone up 26 percent since the program's inception. Weekly fees were $50 in 1988/89 and are currently $63, which is competitive with other providers in the area. These increases, along with an ability to serve all the district's eligible children, continue to be the subject of debate within the school district.

**Meeting Program Goals**

The program goals outlined in the introduction to this preliminary report specified that:

1. Early childhood education opportunities must be universal; while they might not necessarily be free at the point of service, cost should not pose a significant barrier to enrollment;

2. Children should be "ready to learn" and on equal footing when they enter kindergarten; and,

3. Special services should be available for "at-risk" children.

The 21st Century program in Independence has made a good start toward achieving these goals. The preschool program is available in eight of the 13 elementary schools. Although most programs are fairly well-filled, there was not much evidence of a waiting list.

All children ages three and four are eligible to enroll in the program. The only barrier to program participation is the cost. As noted above, the school district has implemented a scholarship fund to help families in need, and low-income families can be reimbursed for child care services from a Department of Family Services block grant. The district is

committed to serving children with disabilities as evidenced by the services available through Project Reach and the Early Intervention team, as well as the attitudes of the 21st Century staff. Other at-risk children also have the opportunity to obtain early childhood education and development services through other local programs—Head Start, Even Start, and Parents as Teachers.

It appears that despite limitations in funding, the school district and related child and family services agencies are highly committed to the welfare and well-being of children and their families in Independence. But from the site visit, little information was available on the numbers of children not served by the various preschool program opportunities in Independence. It is likely, however, that many children remain unable to gain access to quality preschool services because of the cost. Some of these children could be served by Head Start programs, if space were available.

Evidence demonstrating the benefits of the 21st Century program for children entering kindergarten is not yet available. (The Bush Center at Yale University is conducting a multi-year study of the program.) Since Independence uses the Project Construct curriculum through grade three, with formal academics beginning in grade four, it may be difficult to predict how children in Independence will perform on standardized tests. No formal reports or grades are issued on the children's developmental progress, and work continues to be child centered and directed until grade four.

## Lessons Learned From Independence

The School of the 21st Century program in Independence proves that a high-quality, affordable preschool program can be successfully implemented in a public school setting. Indeed, a number of Schools of the 21st Century have begun in the past several years in urban, suburban, and rural areas, demonstrating the program's replicability and adaptability to various settings. Significant participation rates indicate that the program does not have to be free in order to attract enrollees. For many families, reasonable user fees are not a barrier to enrollment. Two of the principal preschool options in Independence

combined—the School of the 21st Century and Head Start—provide child care and preschool services to more than half of all three- and four-year olds in the Independence area. But for many other families who cannot afford to enroll their children, even so-called reasonably-priced programs are unrealistic.

While the program can be replicated in other areas, it is important to note that not all communities will embrace the idea with open arms. Blue Springs, a neighboring community of Independence, has steadfastly refused to implement a 21st Century program. Blue Springs has a strong home provider network and association, and this group has resisted efforts by the school district to start up a public school-based program. Other school districts may face similar opposition if the 21st Century program is perceived as being competitive with home- and center-based providers of child care.

## VI. PRESCHOOL PROGRAMS IN FRANCE

### Background

The French preschool system, école maternelle, provides publicly-supported universal early childhood education to children two- to five-years old. The term école maternelle was first used in 1848, referring to child care for young infants. A 1886 law established nursery schools in France as educational institutions, integrating preschooling into the elementary school system. In 1975, legislation opened up preschool education to all children under the age of compulsory schooling.

The primary purpose of the école maternelle system is to provide "cognitive development in the framework of a developmentally appropriate curriculum" (Kamerman 1991:183). The maternelle system is much more than a day care system although it includes elements of day care.

Along with cognitive development, "socialization" is a key goal of the system. Children learn to understand the world around them, to act in it, and to get along with others. They learn to talk, to listen carefully, to use their imaginations, and to improve their verbal skills. If French is not their native language, the are taught to speak French well. Combining these goals, the maternelle system strives to help young children develop a zest for learning, basic learning skills, and an ability to communicate with others. An effort is also made to identify both physical and mental disabilities and wherever possible, to integrate children with such challenges into the mainstream educational system.

This report is based on a series of in-depth interviews conducted in France in the summer of 1994. These interviews were conducted with several senior officials at the French Ministry of Education specializing in preschool education, representatives of the Paris city government, and representatives of private organizations conducting research, technical assistance, and organizational support for early childhood education. Site visits were made

to maternelle schools; the findings also draw upon source materials gathered from French experts as well as some discussions with local U.S. experts on the French system.

**Basic Facts**

Nearly all young children in France are enrolled in public or private nursery schools, or in public elementary schools that hold classes for preschoolers. Approximately 2,570,000 children ages two to five attended pre-elementary institutions in 1992-93: 1,896,000 were in public nursery schools; 357,000 were in public elementary schools (classes for preschool age children run by elementary schools, primarily in rural areas); 37,000 were in private nursery schools; and 280,000 were in private elementary schools.

Participation is voluntary, but has been growing steadily over the last two decades. Now, virtually all three- to five-year old children are enrolled in école maternelle. For example, enrollment of four-year olds rose from 87.3 percent in 1970–71 to 100 percent in 1992–93, and enrollment of three-year old children jumped from 61.1 percent in 1970–71 to 99.0 percent in 1992–93 (Ministère de L'Education Nationale 1993).

Roughly a third of all two-year olds are enrolled (35 percent), about double the proportion in 1970–71 (18 percent) (Ministère de L'Education Nationale 1993). All children age two years and three months are eligible for école maternelle, but there is not enough funding for all two-year olds to attend. In 1989, the right to be accepted in a maternelle school was extended preferentially to two-year olds whose schools were located in a socially disadvantaged environment (Ministry of Education 1993).

The pupil/teacher ratio in école maternelle averaged 27 children per teacher in 1992-93. Teachers are assisted by teacher aides; there is typically about one aide per two classrooms. Though not highly paid, teachers' compensation is comparable to similarly educated and experienced professionals. Entry-level salaries are in the range of $18,000 a year, while the most experienced teachers earn the equivalent of about $27,000 a year.

The cost per child for preschool education was $2,311 in 1991. National and municipal governments split the costs of preschool education. National financing amounts to about 56 percent of total funding, and is paid for primarily through the value-added tax, which in France is 18.6 percent. This covers the full cost of teachers' salaries and special education personnel (e.g., psychologists, speech therapists). Municipal governments contribute about 34 percent of total funding, paid for primarily through land taxes. This goes toward teacher aides' salaries, as well as the costs of constructing and maintaining buildings. Parents pay the rest, approximately 10 percent of the total cost per child, for "wrap-around" services that consist primarily of on-site child care before and after normal school hours (Richardson and Marx 1989).

**École Maternelle: Schedule, Curriculum, and Teacher Training**

The école maternelle is an integral part of the public education system. Some facilities are located next to or inside public primary schools, although more often the actual facilities are free-standing, completely separate structures (Kamerman 1991).

The nursery school week runs from Monday through Saturday, from 7:30 am until 6:00 pm, with no schooling, as such, on Wednesdays. The core educational programming runs from 8:30 am until 4:30 pm. The hours before and after these core hours are less structured. In most cases, parents bring their children to the school on Wednesdays, primarily for day-care services. Parents contribute to the cost of Wednesday activities as part of their "wrap-around" fee. Teacher aides take over on these days, and this continuity helps working parents.

The school day is a combination of language arts and developmentally appropriate exercises, crafts, games, dance, singing, rest, and play (Richardson and Marx 1989). In a typical school day, children will start off with some free time to play on their own or with a few other children. The children choose the games or toys they want to use. After a snack break at about 10:00 am, activities become a bit more organized. The teacher will begin to cluster the children into groups. For example, in a classroom with 28 children, the teacher may set

up four groups. One group might be learning to recognize sizes and shapes, another might be working on numbers and letters, and so on.

Even during the group activities, children are given considerable freedom to follow their own inclinations and interests. Developing a sense of independence and responsibility in young children is an important goal in French preschools. Children are encouraged to establish independent relationships with other children, and interact with them to design or arrange their own activities. Thus, the "curriculum" is, in practice, very flexible. The école maternelle system also makes a major effort to reach out to vulnerable children from disadvantaged backgrounds. This effort will be described in the next section.

Nursery schools are expected to cover certain major fields of learning: physical activities; science and technology; oral and written expression and communications activities; and artistic activities (Ministry of Education 1993). Children are divided by age into lower, middle, and upper sections of nursery school. The lower and middle sections cover children ages two through four, and taken together, these children constitute the first of four "cycles" of education that correspond to differing developmental levels. The first cycle concentrates on *primary learning processes*, and children within this cycle are allowed to progress at their own speed. The second three-year cycle includes children in the upper section of nursery school (i.e., five-year olds) and the first two grades of elementary school. This cycle concentrates on *fundamental learning*. The third and fourth cycles correspond to upper elementary education, and involve *going into the depth of subjects*. The fourth cycle carries into junior high school, or middle school.

A considerable amount of effort is being put into providing assistance and training to both the école maternelle and the programs for younger children through educational teams. These teams focus on how to create an educational setting in which children can develop their potential. A research unit of the French Ministry of Education is studying relationships among children, as well as those among children and adults to foster children's ability to learn to share, communicate, and interact. They are uncovering methods to let children

invent the way they use materials and to work in teams to achieve results. These teams hold retreats with groups of teachers to analyze their findings and help the teachers implement them. This "action" research directly links the scholars and the teachers and provides for continuous feedback based on real-world experience. For example, one of their recent reviews found that children were being forced to switch too fast from one activity to another. As a result, children can stay on a task for a longer period of time if they appear to remain interested.

All preschool teachers have the equivalent of a master's degree in early childhood and elementary education. In most schools, teachers carry out administrative responsibilities. Often, one teacher is designated as the administrator, but she would usually not try to influence or change the substantive teaching methods used by other teachers. The system is a blend of compromise between an egalitarian tradition and the need for some administrative oversight. At times this delicate balance causes some tensions.

One problem noted by several experts interviewed for this study is that the greater rigidity and uniformity found in elementary schools creates some adjustment problems for children who have become accustomed to a great deal of independence and flexibility in preschool. Children often experience an abrupt transition from a situation where they actively control much of their own activities to one in which they listen more passively to the teacher. It should be noted that this problem is not unique to France. A number of countries with good universal preschool programs are wrestling with how to smooth the transition to elementary school.

**Impressions From Site Visit**

A site visit to a maternelle school conducted as part of the on-site field work for this report showed that a maternelle school provides a comfortable and warm educational setting. A kitchen offers opportunities for children to learn about cooking. A well-stocked library affords quiet time for looking through children's books. Game rooms are well-supplied. In

other rooms, arts and crafts are abundant, and children's paintings and drawings are prominently displayed. A playground is large and well-equipped. In short, a maternelle school looks like a very nice place for a child to spend the day.

**Special Efforts to Assist Disadvantaged Youth**

The emphasis on universal access to publicly-supported schools with a common curriculum has not prevented the French education system from making a special effort to reach out to highly vulnerable populations. While the preschool system is uniform in some respects, it is also capable of building in some differentiation and supplementation to reflect the needs of a pluralistic population.

Zones of Educational Priority

The main effort to reduce under-achievement in school is the Zones of Educational Priority (ZEP) program, adopted in 1981. There are approximately 550 of these zones, each with 3,000–20,000 residents. To achieve ZEP status, schools in the region submit a proposal analyzing their problems, devising a plan of action, and developing an evaluation strategy.

The ZEPs formulate school-centered social intervention strategies, but they also bring together various social service agencies to reinforce educational initiatives. In addition to service integration, the ZEP program features allocating extra resources to the schools and neighborhood revitalization through structural renovation and socioeconomic and cultural development projects (Organization for Economic Cooperation and Development 1994).

The need for the ZEPs arises from the fact that while the overall incidence of poverty is relatively low in France, it tends to be geographically concentrated and often associated with correlative problems such as language barriers, poor nutrition and hygiene, etc. These problems are disproportionately high among immigrants, who tend to be very concentrated geographically.

The ZEPs have incorporated the following types of design alterations and features into the école maternelle model:

- Top priority for two-year olds (many schools do not have enough space to take all two-year olds who are eligible, resulting in queues).

- Reduced ratios of pupils to teachers—the goal is 25 to 1 for ZEPs. This slightly lower ratio enables teachers to provide a bit more individualized attention.

- Increased teacher pay, which is intended to reward teachers for taking on a more challenging assignment.

- More teacher aides and other specialized personnel. This might include both special education teachers (e.g., speech therapists) as well as those teaching art, culture, music, etc.

- Longer hours of operation to accommodate the needs of working parents.

- Extra effort to involve parents in the school, e.g., "welcoming" periods in the early morning where parents might spend 45 minutes in the classroom.

- Greater flexibility for teachers to be creative in finding new ways to help kids and reach out to parents.

- Language training. This could include:
  - -- initiatives to teach children of immigrants to speak French correctly;
  - -- working with immigrant parents who speak their native language in the home to understand the importance of their children learning French; and

-- teaching bilingual children that they can develop strong French language skills while also retaining their cultural heritage and traditions. including speaking their native language.

An evaluation of the ZEP program revealed that it had led to small, positive improvement in subsequent school success. While some interpreted the modest gains observed as discouraging, others read them as rather positive in view of the deteriorating neighborhoods and rising incidence of social problems observed over the decade-long period evaluated. If ZEPs can yield even small gains as conditions worsen, they must be valuable, according to this viewpoint.

Coordinating Social Services and Education

In an effort to help vulnerable youth, a major effort is underway to coordinate a wide range of social services with education. The école maternelle system has been an important focal point for this effort.

The problems facing the French system are similar to those in the U.S. Social programs have been heavily geared to treating the *symptoms* of social problems rather than their *underlying causes*, with more emphasis needed on prevention. Government social programs have been compartmentalized, with disparate efforts to help insufficiently coordinated. For example, the Ministry of Education employs social workers to help in the schools, while at the same time municipal governments also dispatch social workers to the schools; yet the work of the two sets of social workers is typically not coordinated. The federal government in France, as in the U.S., operates on three different levels—national, regional, and district—and this, in itself, causes some bureaucratic entanglement. There is also a need to coordinate all of these levels of government with locally-organized private voluntary efforts.

The Funds d'Action Sociale pour les Travailleurs Immigres et leurs Familles (FAS) is a quasi-governmental organization whose purpose is to improve educational attainment and life prospects for at-risk youth. FAS approaches this task through two basic strategies. First,

it tries to break down the bureaucratic walls between service organizations and coordinate social services. Second, it trains professionals in how to identify problems and develop appropriate interventions for addressing them.

The FAS recognizes that uncoordinated services result not from poor intentions, but rather from ineffective implementation. Each agency is trying to help the neediest kids, and generally their efforts are well-designed and carefully planned. The problem is that the agencies tend to operate in a vacuum, with each following its own mandate, and paying little attention to the other. This leads to overlap, confusion, and duplication of services. This is a problem that most countries are wrestling with today; it is not unique to France.

The FAS has set up a special study mission for early childhood education. The purpose of this mission, as described by Catherine Delpy, a senior official of FAS, is to chop through the parallel corridors that prevent agencies from interacting effectively. FAS has set up study groups to identify problems and propose solutions. Indeed, one of FAS' activities is to organize and coordinate the work of several different task forces and commissions set up to deal with problems of at-risk youth in preschools. One of these commissions deals with immigration problems. Another addresses tutoring for children with education problems. FAS also helps local associations create programs on sports, day care, the arts, etc. FAS has financed some of these activities for immigrant populations. They have also conducted evaluations of these initiatives, tracking kids through the age of five.

A specific example of a successful initiative involved a neighborhood in Paris with very high unemployment. FAS worked with a group of unemployed women to create a day care center. These women needed day care for their own children in order to obtain work, and they wanted it to be close to home. They also observed that other women in the community who were employed had day care needs. FAS contributed both a portion of funding and expertise to this effort. This not only helped form the day care center, but also helped several of the women become qualified as day care workers (FAS helped arrange for their training).

One of FAS' efforts in this project is typical of another role they play. They helped the local organization of unemployed women go to the CNAF (family allowance fund), which gives grants to local groups and funds municipalities to experiment with innovative approaches to social services for youth at-risk. FAS helps and advises local groups about how to develop and shape proposals that meet criteria and guidelines set up by the fund.

The philosophy underlying the efforts of FAS and the national government is to do everything possible to help hold families together. They stress the need for early intervention, through such means as parent education, mental health services, etc. The key goal is to prevent the need to take the child away from parents. One innovative approach used is a "maison ouvert" (literally, an "open house"), an all-purpose counseling service center where families can be referred for confidential and anonymous assistance. FAS helps train teachers to guide parents to such services. These open houses also counsel immigrant parents who may be resistant to their children learning French.

The French also make a major effort to coordinate health services and education. Each child has a vaccination notebook which must be complete and up-to-date for the child to enter école maternelle (at age two or three). In the U.S., this sort of check is usually made in kindergarten, when children are five or six years old. Health screening visits conducted in preschools by medical personnel include dental, vision, hearing, and psychological tests. Parents of preschool children are contacted if contagious diseases are uncovered.

France makes a considerable effort to provide timely prenatal care. At least one-third of all new mothers receive visits from pediatric nurses who advise them on nutrition and other aspects of pre- and post-natal care. Financial incentives are embedded in universal family allowances. Prenatal allowances are paid to all expectant mothers and similar allowances are available for free medical exams for infants (Richardson and Marx 1989).

**Lessons for the U.S.**

France is making a "social investment" in early childhood education. Without mandating enrollment in preschool education programs, the nation has achieved virtually universal participation of three- to five-year olds in a nationwide network of nursery schools. Moreover, while the predominant form of schooling is public, there is a small, but vibrant private sector, and parents have options.

The French believe that these early childhood education programs translate into better outcomes in school performance. For example, French census data indicate that preschool attendance improves the rates at which children from all socio-economic backgrounds pass the first grade—a milestone that in France is commonly considered a good indicator of later school success (Richardson and Marx 1989). These data, grouped and measured separately by "father's occupation," demonstrate successively lower rates of "first-grade-repeats" for children who have attended more years of preschool. French research also indicates that children who attended the école maternelle were less likely to experience failure in third and fifth grades.

The école maternelle system is *not* just a child care system. While child care is an element of the system, the primary goal is to help prepare all young children for life. This is done through a combination of cognitive development and the acquisition of social skills.

The use of public funding with the usual budget constraints limits the flexibility of preschools if they wish, for example, to lower the number of children in the classrooms from an average of 27 to a more manageable number. While large classes are clearly the norm, many teachers find the class size somewhat of a problem. Teachers also voiced concern over their position and status in the teaching hierarchy. École maternelle teachers (who are generally female), though not poorly paid, do not enjoy the same social status as teachers in upper grades (who are generally male). Up to now, despite some discontent, this has not caused preschool teachers to abandon the profession. But the need to attract and retain qualified teachers and continue to achieve good results could be threatened in the future

if perceptions about the value of nursery school teachers or the high pupil/teacher ratios cause qualified potential candidates to choose professions other than working in the école maternelle.

Despite these concerns, the French system measures up well against the three goals for early childhood education listed earlier in this report, i.e., that the system should be universal, that children should be "ready to learn" when they enter kindergarten, and that special services should be available for children at risk of school failure. The French system certainly provides universal opportunities, and income is not a barrier to access. The French strive to make all children ready to learn. This includes children whose families are non-French speaking, and other children who present additional challenges to the educational system. And the French system specifically targets young, at-risk children.

By contrast, the current U.S. system falls short of meeting these goals. As noted in Section II, only 40 percent of children entering kindergarten in the U.S. had a preschool experience, despite findings that attending preschool can provide benefits to children. Among lower-income children in the U.S., the proportion with preschool experience is significantly lower (General Accounting Office July 1993).

The U.S. can learn some basic lessons from France:

- We do not have to make preschool education compulsory to make enrollment nearly universal; if we create a quality product and subsidize it, parents will use it.

- We do not have to outlaw or preempt the private sector in order to build up a public sector preschool system; a publicly-run preschool program could be designed to accommodate U.S. preferences for choice and pluralism. École maternelle is the dominant system, but not a "monopolist."

- Requiring high academic training standards for educators can produce quality results.

- An "investment" of tax dollars is likely to pay dividends in the form of better performance in primary school and beyond for many children in the U.S. who are now getting no preschool experience.

- There are also intangible benefits in the form of "socialization" that are difficult to quantify.

- Efforts to provide incentives to draw family-based child care workers into the regulated sector can work well.

Additional lessons for the U.S. can be drawn from the French approach to assisting vulnerable children in the school system. Clearly, establishing a system with truly universal access to early childhood education is one of the most important steps to helping vulnerable children. But the French are committed to bringing extra resources to the task, and many of the initiatives designed for children at-risk involve extra resources in the schools—for example, more teachers, more aides, higher pay, etc. In this way, the French system helps assure that these children get extra attention from the best trained people.

The French early childhood education system appears to recognize the critical impact of social problems on success in school. Beginning with very young children, preventive measures and early interventions are stressed over remedial actions. Preschools can be the focal point of health screening and immunization checks. And confidential, adult programs for the parents of preschoolers help to bridge the "cultural gulf" that can isolate certain population groups whose native language is not French. The U.S. too must tackle many similar problems, including poor nutrition, child abuse and neglect, language barriers, and others if children are to succeed in school.

The French system strives to include one of the most important components of a successful strategy, namely, an effort to coordinate the work of social agencies with each other and with the school system. This involves efforts within levels of government (e.g., the Ministry of Education's national, regional, and local offices) and across levels of government. The French, like many Americans, view this as a difficult task, but one that is absolutely essential to addressing the broad range of need confronting vulnerable populations.

## VII. DESIGN FEATURES AND ISSUES OF A PUBLICLY-SPONSORED VOUCHER SYSTEM: MODEL 3

The existing system of private, center-based early education programs can provide a basis upon which to build an expanded early education system for three- and four-year olds. This approach provides a "private" alternative to the public school-based option discussed earlier in this report.

The private option would include public subsidies for the poor and other lower-income families who would otherwise be unable to purchase early education services for their children. These subsidies could take the form of *vouchers*, which are commonly given to eligible families to be used to "purchase" specified services. Vouchers are designed to promote competition among providers of the service. The subsidies could also be provided via *contracts* in which certain approved or licensed programs receive reimbursement agreements from the funding agency for a number of "slots" allocated to eligible children. In the field of child care, both vouchers and contracts can provide a mechanism to serve the needs of families. Parents tend to prefer vouchers to contracts because in most cases they offer greater flexibility. With vouchers, families can generally choose among many different child care options, and they can change their child care arrangements as their preferences change.

Child care providers and various home- and center-based programs, on the other hand, generally prefer the more stable and predictable source of funding associated with contracts (Stoney and Genser 1992). This is especially true in lower-income communities, where fewer families can afford private preschool fees. Through contracts, providers are essentially "promised" a number of slots, generally for reduced tuition payments (depending upon the market rate requirements tied to the source of funding).

Both vouchers and contracts can link children with early childhood education opportunities. Because each mechanism has benefits, some states are beginning to experiment with systems

that offer both contracts and vouchers. For the purposes of this report and its description of the private market option, a "voucher" system will be discussed and should be interpreted broadly to include public subsidies for vouchers, contracts, or blended systems. Additional information about the use of contracts and vouchers is included in the case study on the Texas Child Care Management System (Section VIII).

Vouchers and contracts are already used to subsidize child care and early education for some poor and at-risk children. We estimate that up to $2.5 billion is currently expended by the federal and state governments for voucher-type programs for three- and four-year olds. (This is in addition to approximately $3 billion for Head Start and $1.2 billion associated with federal Dependent Care Tax Credits and Flexible Spending Accounts for families with three- and four-year olds.)

There are indications that there is considerable pent up demand for subsidized early education programs. The working poor, for example, are excluded from many child care subsidies categorically, although their situations are quite similar to welfare recipients. Many states have lengthy waiting lists for child care subsidies comprised largely of the working poor who genuinely need child care to keep their jobs, stay off welfare, and attain self-sufficiency. Texas, for example, has an estimated 40,000 children on a waiting list for child care subsidies; in California, there are approximately 255,000 children (up to age 13) on such a list (General Accounting Office May, 1994). Providing subsidies to many of these families could create a surge in demand for preschool and child care programs and create short-term supply problems. Very rapidly, however, the supply of programs would increase to meet the demand—if the subsidy level provided an appropriate payment to the center. If subsidies were too low, the supply would not grow, except perhaps for "cheaper" services of questionable quality.

**Subsidy Amount**

The voucher model developed here is based on providing full subsidies for early childhood education to poor and near-poor families (up to 133 percent of poverty), and sliding scale subsidies for families with an income between 134 and 185 percent of the federal poverty line. Like the public school-based model, the voucher option would be voluntary, with parents choosing whether to send their children to preschool. Unlike the public school-based option, parents would have greater choice in the type of program chosen. This choice, however, would be determined in large part by the generosity of the subsidy available, and the sliding scale contributions required at various income levels.

The private preschool market exhibits a wide variance in costs, with some programs charging far below the average market rate, and others setting tuition fees far above that rate. If subsidy levels are set at the low end of the scale, then for people who cannot afford to add their own dollars to the subsidy amount, choice of program will be limited to those programs that fall at or below the subsidy level. To the extent that lower-priced preschool programs are lower-quality programs, this could relegate lower-income families to the substandard programs. Therefore, we recommend that the subsidy level be fully funded (i.e., at 100 percent) based on the average market rate in the region.

**Phase-In Period**

Expanding access to many more low-income children through a voucher-based program would take a few years to reach full implementation, although not as long as a public school-based option. Implementation is based primarily on administrative functions. Actual preschool operation start-up costs are left to the private sector. And within the private sector, preparation such as physical plant requirements for setting up new centers are less demanding than those involved in a public school-based early education program, which must be equipped to handle the full three- and four-year old population in a given area. Private centers frequently begin in church basements or other unused portions of buildings where there is more flexibility to accommodate fewer children, if the center administrator so chooses.

**Setting Quality Standards**

The same issues that surface when designing a public school-based preschool program for three- and four-year olds pertain to the design of a voucher-based system built upon the private preschool market. These issues concern the educational and training qualifications of the staff, their salary levels, their composition, and child to staff or teacher ratios. These issues are critical to the quality of a preschool program, regardless of where or under what administrative structure the preschool is designed. And, like the case of the public school-based option, they have a tremendous impact on the cost of the program.

The private market for center-based early education programs has evolved over the past two decades into an extremely varied landscape with enormous variety and inconsistent quality. According to a national survey of child care settings, the Profile of Child Care Settings Study, in 1990 there were about 80,000 early education and care centers that served approximately five million children (Willer et al. 1991). Another four million children were cared for through regulated and unregulated family child care arrangements. (Included in the number of center-based programs are all licensed center-based programs, except religious-sponsored, part-day and school-based preschool programs.) From the mid-1970s until 1990, the number of center-based programs tripled, with increasingly younger children enrolling on a part- or full-time basis.

The problem of uneven quality appears to be endemic to the "private" option, although the issue of quality is equally important in the public school option. The difference, however, is that in a public school-based early education program, an approved curriculum, salary structure, training and education requirements for teachers, staff-to-child ratios, and philosophy tend to be relatively uniform across a school district. With the voucher model, these variables that are so important to quality can vary tremendously from center to center. Thus, preschool children in the same geographic area can be faced with very different preschool experiences. As a consequence, they are less likely to enter kindergarten on equal footing.

An expanded preschool program that targets low-income three- and four-year olds should require a certain set of predetermined quality criteria to assure that these children are enrolled in a program that is safe and developmentally appropriate. All states regulate center-based care, although 13 states exempt church-run programs and 22 states exempt part-day programs (Galinsky and Friedman 1993). These state regulations primarily address the issues of safety of the physical plant and staff coverage; they are usually silent with respect to curriculum or developmental milestones. This can be seen as both a strength and a weakness of the current pluralism of the private early education system in this country—early education programs can be extremely varied from program to program, allowing both considerable innovation in the delivery system and parental choice based on varied preferences.

This lack of uniformity, however, makes it especially difficult to ensure an acceptable level of quality in the private preschool market. This occurs for several reasons, including the different educational or developmental philosophies that seem to exist in the early education industry. According to the National Association for the Education of Young Children (NAEYC), which has developed standard measures of quality for group care programs, the single most important factor affecting a child's development is the relationship between the child and the teacher-caregiver (Bredekamp 1984). The quality and the continuity of the teaching staff was mentioned earlier in this report as being vital to the quality of public school-based model; it is equally important in a system of competing private programs. But where public school programs tend to conform to teacher training requirements and curriculum standards that are in place in elementary schools (and consequently may suffer from the same deficiencies or problems already in place in these higher grades), each private center must develop its own set of quality requirements, without the benefit of a link to an established school system. While this could result in exciting innovation and high-quality, creative programs, it could also result in a highly variable landscape whose quality is spotty and inconsistent.

One reason for concern is the disparity seen among the salaries of teachers. Teachers outside the public school system are, as a group, paid much lower salaries, and many centers experience high teacher turnover and low morale. The Profile of Child Care Settings Study, for example, found that in 1990, teachers in private preschools earned an average of $7.49 an hour; the average in for-profit programs was even less—$5.43 an hour. In public-school based programs, the average was $14.40 an hour (Willer, et al. 1991). Not surprisingly, low salaries tend to attract teachers that are less well-trained or educated and can lead to extremely high teacher turnover rates, a clear indication of a low-quality program.

For these reasons, any attempt to broaden the subsidized early education system should be accompanied by mechanisms to steer families receiving subsidies toward higher-quality centers. There are several ways this could be accomplished. The subsidy level could be set above average market rates to enable families to afford higher-priced, higher-quality centers. This could, however, inflate costs in the preschool market without assurances that higher prices were associated with higher quality. An alternative approach could be to provide a subsidy based on the average market rate, but limit its use to centers that have been accredited by an expert body—perhaps the NAEYC, which has established accreditation criteria and procedures and already accredits (for a fee, based on the program's enrollment) several thousand center-based programs (National Association for the Education of Young Children 1991). Still a third alternative could place responsibility for quality assurance at the state level, with improved regulatory enforcement and additional quality criteria for licensure.

Regardless of the mechanism used, federal and state subsidies should carry requirements to ensure an appropriate and safe developmental and educational environment for children attending preschool. Staff qualifications need to be appropriately identified without being overly rigid. The NAEYC currently recommends that preschool staff have an appropriate level of training that varies according to their levels of responsibility. Center directors, for example, should have relevant bachelor's or master's degrees; teachers, on the other hand, could be qualified with a Child Development Associate (CDA) credential, or a relevant

associate's, bachelor's or master's degree. All staff are required to have some training in early childhood education and development, although staff can meet these requirements through on-the-job training programs.

In addition to these staff qualifications, NAEYC uses nine criteria to accredit center-based programs: interactions among staff and children; curriculum; staff-parent interaction; administration; staffing; physical environment; health and safety; nutrition and food service; and evaluation. Each of these criteria includes a goal for performing at a high level, and is accompanied by several guidelines for achieving the goal. For example, the goal for "curriculum" states that "The curriculum encourages children to be actively involved in the learning process, to experience a variety of developmentally appropriate activities and materials, and to pursue their own interests in the context of life in the community and the world" (1990;39). The goal for "staffing" reads: "The program is sufficiently staffed to meet the needs of and promote the physical, social, emotional, and cognitive development of children" (1990;20). Taken together, compliance with these nine goals would go far toward ensuring that children were enrolled in safe and appropriate educational and development preschool programs.

**Enhanced Services Targeted Toward At-Risk Children**

A voucher program should be designed to provide enhanced services to those children at risk of school failure. The specific nutritional, health, and social services included in the public school-based model (Section III) are just as important for at-risk children in the private market.

There are several ways to design a voucher program that meets these goals. Subsidy levels can be high enough to capture the full "enhanced program" costs, with accreditation hinging on proof that all desired services are being provided to those children who are eligible for extra services. This would build a more comprehensive set of service expectations into the basic tuition. Or, the subsidy amount could reflect non-enhanced service levels, and preschools could apply for added state or federal funding specifically for these enhanced

services. Both of these options would require careful and potentially costly oversight to check compliance. Still a third alternative could be to include these services in the *basic* accreditation process. Under this model, every preschool would be required to make certain that all children received health screens, for example, either through their private insurance, out-of-pocket, or, if eligible, through public supports. In this way, service delivery would be more uniform across income levels within a center program. For example, all children would see a doctor; the difference would be in who arranges care and pays for the screen or treatment.

## VIII. STATE-LEVEL ADMINISTRATION OF A VOUCHER PROGRAM: A LOOK AT TEXAS

### State Funding For Child Care And Early Education Services

Every state administers some form of a voucher- or contract-based child care and early education system for poor and at-risk three- and four-year olds. Every state has waiting lists for such programs; no state, however, fully meets the needs of all poor children or those at risk of school failure.

The existing voucher and contract programs can take many different forms, but generally they have in common the following two elements: (1) they manage federal and state funds available for the purchase of child care and early education services; and (2) they try to make certain that the funds are used appropriately and the families receiving the child care subsidies are eligible for such funding. Some state systems also assist in matching families with providers.

Overall, state spending on child care services is less than federal government spending, although the amount spent per child varies enormously from state to state. In 1990, total spending from all 50 states plus the District of Columbia totalled just under $2 billion for children under the age of 14, spread across a variety of child care and early education services (Adams and Sandfort 1992). Spending in five states—California, Florida, Massachusetts, New York, and Texas—accounted for 50 percent of total spending at the state level.

The last few years have seen a dramatic shift in funding for child care. At the same time that more funding has been made available at the federal level, state money appears to be disappearing in many parts of the country. Thus, total spending has increased for child care and early education services, but not to the levels that were originally anticipated upon expansion of federal programs. The federal funding presumed voluntary participation from the states when programs were created that required state matching funds. A significant

amount of Title IV-A at-risk funding, for example, goes unexpended from year to year because states are unwilling or unable to contribute matching funds. In the 1990 ranking of states' contributions to child care programs, Texas provided the fourth highest amount to these services. Now, the state provides no funding to voluntary matching programs.

Over the past five years, more and more states have moved to voucher-based systems in place of contracting for preschool or child care slots, in part because of the federal Child Care and Development Block Grant's (CCDBG) stipulation that funding be tied to vouchers only. Although substantial, the CCDBG funds are not the only available source of money for publicly-sponsored child care. There are many different federal programs that provide resources to families in need of child care and early education services, and attached to these programs are a variety of eligibility and program rules and regulations. Some federal and state programs allow the states to offer vouchers to families *or* contracts with providers.

Even prior to the creation of the Child Care and Development Block Grant program and its requirement for vouchers, some states began implementing voucher systems, taking the position that funding should follow the family, not the provider. Some of these states currently deal exclusively with voucher arrangements. If effectively identified and managed, these funding sources can become portable sources of child care assistance that move with a family from welfare to an initial work period and beyond, until a family is better suited for self-sufficiency. Too frequently, however, there are not enough vouchers to meet the need for child care.

**The Voucher-Based System in Texas**

Texas is an example of a state that currently relies exclusively on vouchers to subsidize families in need of child care and early education services. The Texas Department of Human Services administers a subsidy program that provides vouchers for these services to, among others, families with three- and four-year old children. These vouchers can be used to purchase a variety of child care and educational programs.

The program in Texas discontinued its use of contracts to provide child care opportunities for its residents more than 10 years ago, after families began moving from urban centers to the suburbs, but were unable to receive child care services in their new locations. The state switched from a system that tied child care subsidies to the facility to one that matched subsidies with families.

Many providers in Texas were opposed to the movement from contracted slots to vouchers. According to one study, most providers with state contracts saw decreases in their revenues as a result of the changeover (Stoney and Genser 1992). Like providers in other states, Texas child care centers and other providers generally prefer the stable funding associated with contracts over the flexibility of the voucher system. Under a contract system, a licensed facility could bank on a certain number of slots being subsidized by the public program. If a family with a child occupying that slot moved to another area, that slot would automatically be filled by another eligible child. *Under a voucher system, that child would transport the voucher to another caregiving arrangement.* The vacancy, then, would be filled only when a child on the waiting list received an available voucher and selected that center. With thousands of children from all parts of the city or region on the waiting list, it could take months or longer before this would occur. Despite their resistance to a complete switch from contracts to vouchers, most providers were able to continue in the child care market.

Texas relies primarily on federal funding for its voucher-based program. The state itself contributes little funding to the pot. Because of a deficit in the Texas state budget, the state will not commit any resources unless they are legislated or adjudicated (Jo Carcedo, personal communication, January 1995). Some communities in the state, however, contribute their own funding and receive some of these available federal dollars. Philanthropic organizations, such as the United Way, also provide support that can qualify a community for federal matching support.

## The Texas Child Care Management System

In the early 1990s, the Texas Department of Human Services established its Child Care Management System (CCMS) to provide more coordinated, flexible and responsive services to eligible families in need of child care. This system was very innovative in terms of the way it handled the many funding and eligibility streams earmarked for early education and child care. *The CCMS, for example, integrates funds from twelve sources that serve twenty-two different client groups* (although many clients qualify for support under several different eligibility categories). These client groups are assembled in priority order. Those for whom funding is not immediately available are put on a waiting list.

### How the System Operates

Texas allocates child care subsidies across 27 service delivery agencies based on economic and demographic characteristics. These 27 area agencies develop relationships with licensed center-based programs and registered home programs, and become the point of service for the families eligible for subsidized child care and education. These agencies, as part of the computerized CCMS system, can communicate with each other and share important information. In addition, when families move to different locations within the state, they retain their status within the CCMS. The system facilitates the family's ability to maintain a steady stream of child care funding, regardless of their mobility.

Parents in need of care can receive information about the child care programs in an area, as well as the funding that is available for the family. These agencies work to provide a seamless stream of funding by appropriately matching qualifying families with available resources. They identify the program, secure the funding, and follow the family through the system, making adjustments when family circumstances change.

Even with Texas' success in creating a seamless network of funding, there are limitations that have real consequences for a family's ability to secure quality child care and remain off the welfare rolls. Without state funding to augment federal sources, Texas is relegated to providing only what the federal government's funding sources offer. These sources, while

vitally important to children and families, frequently come to an abrupt halt before a family has safely crossed the line from economic dependency to economic self-sufficiency. For example, families generally receive no more than 12 months of child care after moving from welfare to work, after which they lose their benefits. This 12-month period is often not long enough to result in lasting self-sufficiency.

If their income is below a certain amount, they may qualify for child care benefits by virtue of their income status. They would be placed on a waiting list that is prioritized according to eligibility categories. AFDC recipients and children in foster care are placed at the top of the list, and "income eligible" children are much farther down the list. As a result, these income eligible children are unlikely to ever receive the vouchers. In this case, these working poor families have limited choices. They can reduce their work hours to care for their children—thereby also decreasing their income, making less and less child care affordable; they can leave children with relatives or friends; or they can go back on public assistance.

The CCMS has been successful in meeting one of its principal goals, namely to provide families with a single point of entry into the public child care system. It has been less successful in meeting one of its other goals concerning data collection and the ability to generate meaningful management reports. For this reason, the CCMS is in a redesign phase that is scheduled for completion by the end of 1995 and should allow more flexible report generation and monitoring of funds expended and clients served. The changes should also allow the CCMS to interface with other departments providing child-related services such as education and child welfare offices.

## IX. ESTIMATING THE COSTS OF AN EXPANDED EARLY EDUCATION PROGRAM

In order to estimate the cost of expanding early education through either the public school system or through vouchers, numerous assumptions must be made about participation rates for different income categories, actual per-child expenses for any given year, and the extra costs for additional services for at-risk children. The assumptions used in the following cost analysis are based on historical data, current preschool participation rates, census data, discussions with experts, and our best judgments. They are not intended to provide exact, definitive costs estimates, but rather to present an order of magnitude and some basis for comparing the financial burden associated with the different models discussed in this report.

The estimates are presented in 1994 dollars, and they include program costs and other supportive services for a fully phased-in program. In practical terms, it would take a number of years for any such program to be approved, planned, and implemented. It is also possible that individual states or communities—not the entire nation—could adopt one or a combination of these programs, or could create their own modified version to suit the state's or community's specific needs. Each model presented here is designed as a stand-alone option for comparison purposes; however, in practice, each should not be construed as an "all or nothing" deal.

The estimates do not include initial start-up expenses, capital costs, or other types of pre-program financing. We assume, because of such enormous fluctuation from school district to school district with respect to start-up costs, that an average national figure would not prove meaningful. It should be kept in mind, however, that there would be start-up costs associated with each of the models presented here.

The subsidy levels and program cost estimates were developed using Bureau of the Census data on families with three- and four-year old children whose incomes are at or below the federal poverty level. In addition, we estimated the numbers of children whose families had incomes up to 133 and 18 percent of poverty. An alternative approach to developing cost

estimates would be to use "median income" as the measurement for targeting subsidies. For example, families with incomes below 75 percent of the federal or (more commonly for child care services) state median could be eligible for subsidies. Either approach can be used, although each would likely result in slightly different cost estimates for the various models presented here. Again, the following estimates, which have been developed based on federal poverty levels, are intended to provide fairly general estimates of the costs of such a nationwide program, and the extent to which the model would result in increased preschool participation.

Figure 1 shows Bureau of the Census data on the population of three- and four-year olds in 1993. Twenty-seven percent of three-year olds and 25 percent of four-year olds are classified as poor, or living below the federal poverty line. Roughly another 8 percent of three- and four-year olds live in families with incomes of 100 to 133 percent of poverty (Bureau of the Census 1994).

**Figure 1**

**Population of Three- and Four-Year Olds**
**(by poverty category)**
in thousands

| | 3 yr olds | 4 yr olds | Total |
|---|---|---|---|
| <100% poverty | 1,093 | 1,016 | 2,109 |
| 100-133% poverty | 329 | 326 | 655 |
| 134-185% poverty | 617 | 610 | 1,227 |
| >185% poverty | 2,074 | 2,117 | 4,191 |
| Totals | 4,113 | 4,069 | 8,182 |

Source: Estimates derived through Bureau of the Census data for 1994 (personal communication, December 1994).

Model 1: Public School-Based, Free Core Program

Providing preschool for three- and four-year olds through the public school system can be designed in a number of ways, each having important implications with respect to the cost, quality and characteristics of the program. Model 1 involves a core, five morning per week, full-year program that is "free" to all three- and four-year olds regardless of family income. A "wrap-around" component, comprised mostly of afternoon child care, would be available on a sliding scale basis. (This model is similar to the French École Maternelle.) Children living in families with household incomes up to 133 percent of poverty would face no fees, and children in households with incomes between 134 and 185 percent of poverty would receive partial subsidies for the wrap-around. This subsidy would average 50 percent of the cost of the afternoon program across the 134-185 percent of poverty income group. We assume that a certain percentage of three- and four-year olds, most likely from families in the upper-income tiers, would select private preschool alternatives. For families with household incomes greater than 185 percent of the federal poverty line, the part-day program in Model 1 would be fully subsidized, but no subsidy would be available for the wrap-around.

The morning program would provide the majority of the "education and development" component of the preschool program. The afternoon portion of the preschool day would include nap time, supervised free-play, and additional developmentally appropriate group activities. The morning session would have somewhat greater structure, but both sessions would be developmentally appropriate. (Because of the children's ages, and their need for an afternoon nap, this schedule cannot easily be flipped, as it can for children in kindergarten.) Since one of the goals of the preschool program is to encourage families to enroll their children in center-based care, we assume only two options for attendance: morning only; or full-time, mornings and afternoons. In other words, the "child care" afternoon portion of the day is open only to those children who attend the core morning session.

The public school-based models assume that Head Start would be phased out and low-income children would attend the public preschool in its stead. Retaining Head Start while developing a full-capacity, public school-based preschool program that targets low-income and at-risk children would be duplicative and inappropriate. Eliminating what has proven to be an extremely effective program, however, could be dangerous and unfair if the public school replacement were not equal to or more effective than Head Start.

An alternative to the public school model involving an enormous expansion of Head Start *could* address much of the need for early education and child care among poor children, but it would fall short of the goal of universality by not offering similar opportunities to those who are not poor or who are not at-risk. The public school option could serve Head Start children *as well as* others, providing a potentially high-quality service without segregating children by income category, and at the same time acclimating children to the public school environment at an earlier age.

Participation Rates By Age and Income

A free early education program would result in high participation rates but a very high new public cost. We assume 78 percent of all four-year olds (in all income categories) would participate in the program. These numbers are much higher than current participation rates in preschool. We also assume that 11 percent of (nonpoor) four-year olds would be enrolled in private preschools. *This would result in an 89 percent participation rate for four-year olds in some form of early education.* This number is extremely close to the percentage of five-year olds who attend public and private kindergarten—i.e., 92 percent (Bureau of the Census 1994). The number is are set lower than the rates currently seen in France, however, since we believe that a significant minority of American families will continue to prefer care by parents or care provided in a home-setting, regardless of the fact that the preschool is free.

We assume that approximately 52 percent of three-year olds would participate in the public school-based Model 1 program. We also assume slightly higher rates of participation in the

public system among poor children than among higher-income children, who are more likely than the poor to opt for private preschools, regardless of the free nature of the new program. *We assume an average private preschool participation rate of 8 percent, resulting in an overall participation rate for three-year olds of about 60 percent.* Figures 2 and 3 present estimated participation rates in public and private preschool by age (Figure 2) and by income group (Figure 3).

These estimates for participation of three-year olds are quite a bit lower than rates in other countries. This reflects the current gap in participation rates in the U.S. between the two age groups; this gap appears to persist even as income rises and is no longer a barrier to enrollment. These rates would likely increase in the longer run, as preschool becomes a more established, accepted phase of education in this country.

**Figure 2**

| **Model 1: Free Core Program**<br>**Overall Participation Rates in Public or Private** | | | |
|---|---|---|---|
| | 3 year olds | 4 year olds | 3 & 4 year olds |
| Percent of all children | 60 | 89 | 74 |
| Number of children | 2,468,000 | 3,621,000 | 6,089,000 |

Figure 3

| Model 1: Free Core Program<br>Participation Rates in Public and Private by Income | | | |
|---|---|---|---|
| | Percent of 3 year olds in public/private | Percent of 4 year olds in public/private | Percent of 3 & 4 year olds in public/private |
| <100% poverty | 55/0 | 80/0 | 67/0 |
| 100-133% poverty | 55/0 | 80/0 | 67/0 |
| 134-185% poverty | 50/5 | 80/5 | 65/5 |
| >185% poverty | 50/15 | 75/20 | 63/18 |
| All income levels | 52/8 | 78/11 | 65/9 |

Full-day Versus Part-day Participation

We assume that about two-thirds of participating three- and four-year olds would attend the core morning session or "part-day" program only. The remaining one-third would attend the full-day program consisting of the morning core plus wrap-around sessions, primarily due to the needs of full-time working parents. Full-day participation would likely be greater among poor and near-poor children for whom the afternoon hours would be free. A smaller proportion of higher-income children would likely attend the full-day program, given that there would be a charge to these families.

Per-child Cost

The analysis is based on the cost of two program options—a *standard* program and an *enriched* program. Both of these program options would include age appropriate curricula and a broad range of developmental activities. The enriched program would target at-risk children, and would include extra services such as health screenings, home visits by social workers, referrals to other social agencies, and free meals and snacks.

The annual cost of the full-day standard program is estimated at $6,483, and the enriched program at $7,456. All families receiving the enriched package would be fully subsidized. The program's costs are somewhat "front-loaded" within the morning session, which contains a higher concentration of educational activities (there is no nap in the morning, for example). We have estimated the subsidy associated with attending the standard morning as $4,322; for students in the enriched program, the subsidy would be $5,295. These estimates reflect 100 percent of the *cost* of the morning-only portion of the standard and enriched programs. Families paying for the afternoon portion of the program would pay 45 percent of the full-day cost, or $2,917; their subsidy or unpaid portion would be 55 percent of the full-day cost, or $3,566. This fee structure reflects the split of morning and afternoon fees in many existing preschools.

Estimates of the costs of both public school models were derived from Head Start per child cost estimates for 1994, with various adjustments. For example, per child costs were adjusted to reflect a 12-month, full-day program. (The average Head Start center currently operates a 9-month, part-day program.) The average per child cost for the standard program was derived by assuming that about 15 percent of the Head Start cost is allocated to the enrichment services. The enriched program is further adjusted to allow for the costs of food, which are currently subsidized in the Head Start program by the Child and Adult Care Food Program operated by the Department of Agriculture's Food and Nutrition Service.

It may be helpful to set these estimates in a public school context to see how they compare to the costs of educating older children. According to the U.S. Department of Education, the average per pupil expenditure for one public "school-year" was $5,314 in 1993-94 (U.S. Department of Education 1994). This national average, however, masks an enormous range in costs from state to state. For example, the highest state average—$9,429 per pupil in New Jersey—is nearly three times the amount seen in Utah, the state with the lowest per pupil expenditure at $3,158 per child.

The disparity can be even greater within states. Michigan voters recently rebelled against years of property tax financing of public education, in part because of the stark differences from locality to locality in resources dedicated to public schools. Although the state spends an average of $5,989 per pupil, the poorest districts spend about $3,200 per child and the wealthiest, about $10,000 (Celis 1994). The wealthiest district in New York spends nearly $46,000 per pupil, despite a state average of $7,642.

The national average of $5,314 reflects the resources associated with operating a 10-month program. If the school year were lengthened to a 12-month program (for comparison purposes to the preschool program), the number would increase to $6,413—virtually the same as our $6,483 estimate for preschool Models 1 and 2. While our estimate reflects a longer day, it also is based on Head Start salaries, which tend to be lower than public school salaries.

We chose to base our cost estimates on the average costs associated with the Head Start program because Head Start is a high-quality publicly funded program that includes a developmentally appropriate curriculum, staff-to-child ratios that are within recommended guidelines, and salary levels that appear to result in lower staff turnover than is generally seen in the private sector. (There is insufficient published information to develop estimates based on current public school preschool examples.) Although Head Start teachers are paid, on average, about a third less than public school-based teachers, raising teachers' salaries may be offset by the economies associated with extending an already existing facility and administrative capacity.

Using the definition of at-risk children described earlier in this report, we assume that all of the participating children in families under the federal poverty line would receive the enriched services. We also assume that about one-fourth of participating near-poor children (between 100 and 133 percent of poverty) would be considered at-risk and would receive the enhanced services. Of course, careful guidelines for determining who is "at-risk" and eligible for the extra services would have to be developed.

Results: Total Costs Of Model 1

Under the above assumptions, the total cost of the Model 1 public school based program for three- and four-year olds would be $28.7 billion. As shown in Figure 4, about $3.2 billion would be provided through fees for the wrap-around program from middle- and upper-income families. The bulk of the cost of the program—$25.5 billion—would require public funding. Some of the funding could be re-routed from current public subsidies that would no longer be necessary. As is described in the following section, however, this represents a relatively small portion (at most, about $6.7 billion) of the public funding required to finance this option. Thus, the bottom line is an annual requirement of $18.8 billion in new public funding (in 1994 dollars).

**Figure 4**

**Model 1 Costs**
**(in billions of 1994 dollars)**

| | 3 year olds | 4 year olds | Total Cost |
|---|---|---|---|
| Costs | 11.3 | 17.4 | 28.7 |
| Fees | (1.1) | (2.1) | (3.2) |
| Public funds required | 10.2 | 15.3 | 25.5 |
| Public funds available | (2.2) | (4.5) | (6.7) |
| New money required | 8.0 | 10.8 | 18.8 |

**Model 2: Public School-Based, Sliding Scale Fees For The Core And Afternoon Programs**

The Model 2 schedule is designed similarly to Model 1, with families able to choose between a core morning program, or a full-time, morning plus wrap-around program. The difference between the two models is that Model 2 would require sliding scale fees for both the core and wrap-around sessions. As with Model 1, both sessions would be fully subsidized for families with incomes up to 133 percent of poverty. Children from families with incomes

between 134 and 185 percent of poverty would receive partial subsidies (averaging 50 percent of the cost) for both the core and wrap-around sessions. And families with incomes greater than 185 percent of poverty would receive no subsidies for either session. Again, we assume that Head Start would be phased out.

Participation Rates By Age and Income

A public preschool program that is free to poor three- and four-year olds, partially subsidized for the near-poor, and requires full payment from middle- and upper-income families should also result in fairly high participation rates, although participation drops off from Model 1 to Model 2 because of the fee requirements. Requisite public financing, likewise, drops sharply from Model 1 to Model 2.

*We assume that 77 percent of four-year olds and 48 percent of three-year olds will attend the Model 2 public preschool program.* These participation rates, however, vary by income to a greater degree than was seen in Model 1. For example, we assume that 80 percent of poor and near-poor children will enroll in preschool under both Model 1 and 2, since for their group, the programs are both free of charge. Enrollment is slightly lower for middle- and upper-income groups for two reasons: price could be a barrier to enrollment; and the public school option is no more attractive from a cost perspective than a private school option. For this reason, many middle- and upper-income families will continue to choose private preschools for their children. These rates are included in Figures 5 and 6, below.

Figure 5

| Model 2: Sliding Scale Fees<br>Overall Participation Rates in Public or Private | | | |
|---|---|---|---|
| | 3 year olds | 4 year olds | 3 & 4 year olds |
| Percent of all children | 48 | 77 | 62 |
| Number of children | 1,974,000 | 3,133,000 | 5,107,000 |

Figure 6

| Model 2: Sliding Scale Fees<br>Participation Rates in Public and Private by Income | | | |
|---|---|---|---|
| | Percent of 3 year olds in public/private | Percent of 4 year olds in public/private | Percent of 3 & 4 year olds in public/private |
| <100% poverty | 55/0 | 80/0 | 67/0 |
| 100-133% poverty | 55/0 | 80/0 | 67/0 |
| 134-185% poverty | 30/10 | 70/5 | 50/7 |
| > 185% poverty | 20/25 | 40/35 | 30/30 |
| All income levels | 34/14 | 58/19 | 46/16 |

Participation: Full-day Versus Part-day

About three-quarters of the four-year olds enrolled in the Model 2 program are assumed to attend the core, part-day session only. The remaining quarter are assumed to attend for the full day. We assume that fewer three-year olds would attend the full-day option. Again, under Model 2, participation rates for the full-day program are assumed to be higher among poor and near-poor children, for whom preschool costs will be fully subsidized. For example, an estimated 20 percent of the country's poor three-year olds would attend the full-day program, compared with only about 10 percent of nonpoor three-year olds. Likewise, 40

percent of poor four-year olds would attend on a full-day basis, compared to only about 16 percent of nonpoor four-year olds.

Per-child Cost

Model 2's costs are based on the same standard and enriched program options as those discussed under Model 1: $6,483 for the standard program and $7,456 for the enriched option. All poor families up to 133 percent of poverty would be eligible for subsidies equal to 100 percent of the cost of the part-time or full-time enriched option. Families with incomes between 134 and 185 percent of poverty would be required to pay fees on a sliding-scale basis, with an average subsidy of 50 percent of the cost. Again, we assume that one-fourth of participating near-poor children would be considered at-risk and would receive the enriched package of services. Families above 185 percent of poverty would pay the full cost out-of-pocket. If they choose only the part-day option, the cost would be 55 percent of the full-day option, or $3,566. The cost would increase to $6,483 for the full-day program.

Results: Total Costs of Model 2

The total cost of the Model 2 public school-based preschool program would be $20.9 billion. Unlike Model 1, nearly 40 percent of the total cost—$7.8 billion—would be paid in fees; the remaining funding would have to be raised through public financing. If the $6.7 billion currently spent on public education and child care-related programs for three- and four-year olds were used, about $6.4 billion of new funds would be required. The figure below illustrates the costs and revenues associated with this model.

Figure 7

| Model 2 Costs (in billions of 1994 dollars) | | | |
|---|---|---|---|
| | 3 year olds | 4 year olds | 3 & 4 year olds |
| Costs | 7.8 | 13.1 | 20.9 |
| Fees | (2.6) | (5.2) | (7.8) |
| Public funds required | 5.2 | 7.9 | 13.1 |
| Public funds available | (2.2) | (4.5) | (6.7) |
| New money required | 3.0 | 3.4 | 6.4 |

**Model 3: A Voucher Option Plus Head Start**

Model 3 is an alternative to the public school based options. It builds on the current preschool landscape, including center-based programs in the private sector as well as Head Start programs.

The Head Start program is retained as an element of Model 3 for several reasons, although we do believe that over the long-term, the voucher-based option could take hold and reach more poor and at-risk children, thus resulting in fewer children choosing to enroll in Head Start. In the short term, however, Head Start would provide a stable and dependable high-quality product that may or may not be replicated on a large scale in the private sector. For example, despite efforts to steer low-income children to accredited, high-quality programs, it should take years for any accrediting body to cover the thousands of preschool programs that might wish to apply for accreditation. Also, a sudden surge in low-income children seeking an enriched preschool program could place unrealistic demands on the current supply of such programs. While the supply of centers capable of qualifying for additional enrichment funding is likely to increase over time, it would take years to accommodate all who wish to enroll.

Participation Rates By Age And Income

The voucher model targets poor children and children at risk of school failure. It does not include subsidies or features designed to increase enrollment of children who are neither poor nor at-risk. Given these design characteristics, we assume that a total of 68 percent of four-year olds and 43 percent of three-year olds would attend a preschool option under Model 3. These estimates assume a significant increase in participation among poor and near-poor children, a moderate increase among low-income children, and no change among the higher-income children. These estimates include subsidized and nonsubsidized attendance at private centers as well as Head Start Centers, and are shown in Figure 8.

**Figure 8**

| **Model 3: Voucher Program Plus Head Start**<br>**Participation rates of public or private** | | | |
|---|---|---|---|
| | 3 year olds | 4 year olds | 3 & 4 year olds |
| Percent of all children | 43 | 68 | 55 |
| Number of children | 1,768,000 | 2,767,000 | 4,535,000 |

Despite Head Start's continuation, we assume that Head Start enrollment would decline in the early years of the voucher program's expansion, due primarily to the fact that full-day options would now be available for working families. Most of the decline in Head Start enrollment would be seen among four-year olds. Currently, Head Start enrolls about 45 percent of poor four-year olds (depending upon the growth in the number of children classified as poor); we project that after an expanded voucher program is implemented, Head Start will attract only about 30 percent of eligible four-year olds. We assume that 45 percent of poor four-year olds would use their vouchers to attend a private preschool—with many of them attending on a full-time basis. We assume that Head Start would enroll roughly the same number of three-year olds—15 percent of those eligible. Approximately 35 percent of poor three-year olds are assumed to use the voucher in the private market.

This results in a total enrollment of 50 percent of poor (and near-poor) three-year olds, and 80 percent of poor four-year olds attending some preschool option. For the categories of children classified as poor and near-poor, these numbers are close to the participation rates seen in Models 1 and 2. They are considerably lower, however, for nonpoor children, who do not receive any subsidies. Figure 9 presents participation rate estimates by age and income.

**Figure 9**

**Model 3: Voucher plus Head Start**

**Participation Rates by Income**

| | Percent of 3 year olds | | | Percent of 4 year olds | | | Percent of 3 & 4 year olds | | |
|---|---|---|---|---|---|---|---|---|---|
| | Head Start | Private | Total | Head Start | Private | Total | Head Start | Private | Total |
| <100% poverty | 15 | 35 | 50 | 30 | 45 | 75 | 22 | 40 | 62 |
| 100-133% poverty | 0 | 50 | 50 | 0 | 75 | 75 | 0 | 62 | 62 |
| 134-185% poverty | 0 | 40 | 40 | 0 | 65 | 65 | 0 | 52 | 52 |
| >185% poverty* | 0 | 40 | 40 | 0 | 65 | 65 | 0 | 52 | 52 |
| All incomes | 4 | 40 | 44 | 7 | 61 | 68 | 5 | 50 | 55 |

* These are derived by extrapolating GAO estimates to entire population above 185% of poverty population (Government Accounting Office July 1993).

Participation: Full-day Versus Part-day

In the first five to ten years of operation, it is assumed that some families would continue to choose Head Start over a voucher because of its reputation for offering a range of high-quality services. Many families will have had older siblings enrolled in the program, and many parents will have become involved in its activities through the community or by

volunteering directly at a Head Start center. Its reputation will cause some families to choose the part-time Head Start program over a full-time voucher option even though they might have chosen full-day care under a public school-based model. Some families, however, absolutely need full-time coverage, and will "drop out" of Head Start programs, opting instead for a private, full-day session. Overall, because of the desire to remain within a Head Start center, the total number of families choosing full-day programs is assumed to be lower in Model 3 than under the public school-based models.

Per-child Cost

Estimates of the cost of Model 3 are based on market research conducted by the General Accounting Office on the average cost of an accredited full-time, full-year preschool program (General Accounting Office 1990). According to the GAO, in 1990 the annual cost per child was $4,871. Adjusting forward using the Consumer Price Index, we estimate the average private preschool cost per child for 1994 to be $5,547 for the standard program, and $6,520 for an enriched program that includes the same types of services described in Models 1 and 2, and currently available via the Head Start program, including free meals and snacks.

It is important to note here that using estimates based on current market practices may engender criticism from many individuals in the preschool community, because they are based on salary levels that are considered far too low to ensure a properly trained, high-quality teaching staff. As mentioned earlier in this report, private preschool teachers earned about $7.49 per hour in 1990; at the same time, their counterparts in public schools earned about $14.40 per hour and Head Start teachers earned about $9.67 per hour (Willer et al. 1991). It appears that among private options, for-profit chains pay the lowest wages—about $5.43 per hour. The low wages contribute to high teacher turnover, which in turn affects the quality of the entire program. For these reasons, some preschool experts have advocated basing a subsidy on an enhanced per-child cost that takes into account the need for increases in teacher pay (Galinsky and Friedman 1993).

While efforts to increase preschool salaries are certainly important to the overall quality of preschool programs, we believe that it is unreasonable to assign an enhanced value to a voucher-based subsidy. This could serve to be inflationary, without any assurances that higher payments to private preschool result in increases in teacher salaries. For this reason, we are using current market practices as the basis for Model 3 costs.

Results: Total Costs of Model 3

Under the above assumptions, the total cost of the Model 3 voucher-based subsidy program for three- and four-year olds would be $7.7 billion in 1994 dollars. Unlike the two public school models, this amount does *not* include the costs associated with the non-subsidized participants, who would pay fees/tuition directly to the private preschools. It also does not include the fees paid by families who have household incomes between 133 and 185 percent of poverty, and who on average would be receiving a 50 percent subsidy. Like other families, this group would pay out-of-pocket fees directly to the preschool. In this case, the entire cost of the program would require public funding, and under this model, there is less revenue currently available to tap. Retaining the Head Start program means that about two-thirds of the current Head Start funding cannot be used to offset the costs of the new program. Nevertheless, the new funds required to finance the voucher model are lower than under the public school models—about $3.0 billion. These figures are displayed in Figure 10.

**Figure 10**

| **Model 3 Costs (in billions of 1994 dollars)** | | | |
|---|---|---|---|
| | 3 year olds | 4 year olds | Total Cost |
| Public costs | 3.3 | 4.4 | 7.7 |
| Public funds available | (1.7) | (3.0) | (4.7) |
| New money required | 1.6 | 1.4 | 3.0 |

Summary

Regardless of the model chosen, it is clear that the country would need to dedicate a significant amount of new public financing to enable many more poor and near-poor three- and four-year olds to experience an early childhood education program. As shown in Figure 11, the net cost of an early education program ranges from about $3 billion to about $19 billion in 1994 dollars.

**Figure 11**

**Comparison of New Funding Requirements (net cost, in billions of 1994 dollars)**

| | 3 year olds | 4 year olds | 3 & 4 year olds |
|---|---|---|---|
| Model 1 | 8.0 | 10.8 | 18.8 |
| Model 2 | 3.0 | 3.4 | 6.4 |
| Model 3 | 1.6 | 1.4 | 3.0 |

Each model offers a different set of costs and participation rates. The first model presents an opportunity to reach the largest number of preschoolers, but its sizeable price tag for new government spending is likely to scare off even some ardent supporters of a universal preschool system. Model 2's costs are much lower, but so are its participation rates. The voucher plus Head Start option is the least costly model, although it also promises the lowest participation rates for the total population of three- and four-year olds, and especially for those who live in middle-income households.

While cost is an important consideration, there are other factors that must be assessed before one model can emerge as the "best" choice. Most importantly, to what degree would each model reach the goals set out in the introduction to this report—making early childhood education opportunities universal, ensuring that children are ready to learn and

on equal footing when entering kindergarten, and addressing the special needs of at-risk children. These issues will be explored in Section XI of this report.

Ways To Lower The Cost

There are a number of ways that the overall cost of the expanded preschool program could be decreased, although each has important tradeoffs that could substantially dilute the original purpose of the program. They could also result in fewer long-term benefits in terms of success in school, earning potential, and overall contribution to society. Two variations to the model designs presented in this report are discussed briefly below. Additional ways to reduce costs could involve reducing salaries paid to teachers, increasing the staff-to-child ratio, or limiting the eligibility for the program further. These methods, however, would seriously jeopardize the quality and/or reliability of the preschool experience.

***Limit the Program to Four-Year Olds***

If the preschool initiative were limited to four-year olds in the early years, the cost would be cut significantly. For example, the new funding required to finance Model 1 would drop from nearly $19 billion to about $10.8 billion. The new funding needed for Model 2 would decrease from $6.4 to $3.4 billion, and for Model 3 new funding requirements would decline from $3.0 billion to $1.4 billion.

These cost reductions are the direct result of fewer children participating in the program. It could be argued that early education is more critical for four-year olds than for three-year olds, especially if a goal is readiness for kindergarten. When considering at-risk children, however, it could also be argued that the earlier the enrollment in a structured, developmentally-appropriate program with enhanced, multi-disciplinary services (e.g., health and social services, nutrition), the greater the impact. This certainly has been the case in the French preschool system.

A compromise scenario would be to begin the new program for four-year old children, and after a few years, phase in three-year old participation. Under the public school models,

the phase-in could be structured so that low-income and other at-risk three year olds are the first groups to be enrolled.

*Cut Back the Subsidies*

Each of the three models discussed in this report is designed to maximize the number of poor and near-poor children who have access to center-based early education. In each case, the subsidy is available for three- and four-year old children living in households with incomes up to 133 percent of the federal poverty line; these individuals receive a full subsidy for the public school-based program, or a voucher that represents 100 percent of the average market rate for an accredited preschool program. The sliding scale subsidy under Models 2 and 3, which is available to families with incomes between 134 and 185 percent of poverty, is also tied to the full cost of the program.

These subsidy levels are higher than what currently exists from most federal programs. For example, most vouchers are currently set below market price (at 75 or 80 percent of the average market price). In some states, a participating preschool must accept the voucher as full payment; in other states, families are expected to pay some share of the cost. In either case, however, to stay in business, the preschool must meet its expenses either through out-of-pocket payments from subsidized children, or cost-shifting to nonsubsidized families. This could be done under a new preschool program, as well.

Alternatively, eligibility requirements could be tightened to more closely match eligibility under existing subsidy programs. While some programs do extend eligibility to children in families above the poverty line, most are currently tied to welfare programs that limit funding, in many cases, to well below 100 percent of poverty. If, for instance, the subsidy for the new preschool program were available only to children living in families with incomes up to 100 percent of poverty, the new costs required to finance the programs would be reduced. In doing so, however, the participation rates would also decline, *especially among near-poor children who would be no longer receiving any subsidy.*

Under this scenario, the new funding required for Model 1 would not change significantly, although there would be a shift of children from full-day participation to part-day participation, particularly among the near-poor population, who would be required to pay the full fee for the afternoon wrap-around sessions. (The morning part-day sessions would continue to be free for all income groups.) New funding requirements for Models 2 and 3 would decline significantly. But there would also be a decline in enrollment rates, especially among near-poor and lower-income children. This would undermine the intended purpose of the expanded preschool program.

## X. FINANCING

This section describes existing public spending for three- and four-year olds that could be re-routed to help pay for a new expanded preschool program. This amount is significant, although it would not cover the full cost of any of the three models. We offer some ways to finance the "shortfall," as well as possible mechanisms for channeling the funds to the appropriate sites.

### Resources Available From Current Sources

One way to help finance an expanded early education program for three- and four-year olds is to consolidate existing public funds used for child care and early education from existing programs. Clearly, this would be a technically complex and politically difficult task. But it is an important one, given the overlap and duplication between the existing multiplicity of programs and a new expanded preschool program for these children.

Existing public spending takes the form of direct outlays on child care or early education programs, and forgone revenues associated with *tax credits* for the same activities. These resources tend to be spread across *all* children (up to age of 13 in most cases, but older for other programs). For our purposes, only those funds that are specifically used for three- and four-year olds should be considered "available" for the kind of early childhood education systems described in this report.

### Federal Programs

A report by the General Accounting Office (October 1994) identified 34 federally funded early childhood programs that included education or child care as part of their mission and were operational in 1992 and 1993. Total resources of these programs came to about $8 billion in fiscal year 1994. These 34 programs were administered by five separate federal agencies (Appalachian Regional Commission, Department of Education, Department of Health and Human Services, Department of the Interior, and the Department of Labor). Within the Department of Education alone, there were 15 such programs, each with its own

administrative requirements, eligibility criteria, and program goals. This multiplicity of funding streams is a mixed blessing. More opportunities for support are available with each additional program, yet no one program claims full responsibility for early education programs for poor children.

Despite the plethora of programs that are available and targeted toward the economically disadvantaged, most disadvantaged three- and four-year olds do not participate in any type of preschool program (General Accounting Office July 1993). Some programs have long waiting lists for services, and it is unlikely that all or even most eligible families apply for education and child care subsidies. The families that do obtain subsidies for these programs seek subsidies either through referrals from state welfare agencies or other social service organizations, or via a nationwide network of child care resource and referral agencies that serve as a link between families and providers. Because of resource constraints, however, few of these agencies conduct outreach to bring eligible children into the referral network.

The Head Start program is by far the largest program targeting early education and child care services to three- and four-year olds. The Fiscal Year 1994 appropriation for Head Start was $3.2 billion; over 90 percent of the children served by the program are three- and four-year olds. Thus, nearly $3 billion of Head Start funds goes toward services for three- and four-year olds. With few exceptions, Head Start funding supports Head Start centers that exclusively enroll Head Start-eligible children (a notable exception is discussed in the case study section on Braxton County, West Virginia). Head Start funds do not subsidize private preschools or home-based care, although certain other federal sources (such as Title XX funds) can be used at the state's discretion to support Head Start activities.

The majority of funding available from 33 other key federal programs for early education and child care serves as a partial or full subsidy for home- or center-based preschool and child care programs. In the context of these voucher programs, *full subsidy* generally means that the family receives the full amount of the *available* subsidy as determined by the state, which in most cases is a percentage (usually 75 or 80 percent) of the average market rate

for services in a geographic area. Providers are under no obligation to accept lower rates, and in some cases low provider participation can hamper efforts to match families with programs.

Some of the federal programs provide general support to children under the age of 18 (or, for child care, under the age of 13) according to various eligibility criteria. Others specifically target economically disadvantaged youth (which can be defined differently from state to state), developmentally delayed or at-risk children, migrant children, or abused or neglected children. A few of these programs are especially important to educating preschool children, as early childhood education and child care are central to their missions.

Following are descriptions of some of the major federal programs that could be "tapped" to help finance a new early education program.

- ***Child Care and Development Block Grant***: Recent expansions in federal funds available to cover child care-related costs, in the form of Child Care and Development Block Grants and other programs, have opened the door to center-based care for thousands of poor children. The CCDBG program, originally authorized in 1990, provides funds for subsidies and preschool and child care program expansions. According to federal regulations, up to 75 percent of total program funds may be used to provide subsidies for children of working parents with incomes less than 75 percent of the state median. These subsidies must be largely in the form of vouchers that enable parents to exercise choice when enrolling their children in preschools *or* family or home child care. Most of the remaining funding is dedicated to improving the quality of programs or developing new child care supply. The General Accounting Office estimates that in fiscal year 1992, about $200 million in CCDBG funding was spent on child care and early education for children under the age of five (October 1994).

- ***JOBS Child Care Program and the Transitional Child Care Program***: The Family Support Act of 1988 authorized two entitlement programs under Title IV-A of the Social Security Act. Both require states to provide funding for child care, or provide child care to AFDC families (the JOBS Child Care Program) and prior AFDC recipients who are transitioning to self-sufficiency (the Transitional Child Care Program). States are required to match the federal funds based on the state's Federal Medicaid Assistance Percentage (between 20 and 50 percent). Because these are federal entitlement programs, there are no established limits on funding. Transitional child care, however, appears to be underutilized in the states, in large part because of lack of information about the programs, low reimbursement levels, and inconvenient payment mechanisms (Kisker and Piper 1993). In 1992, over $430 million was spent on these programs. These funds, however, were spread across all age groups, home and center-based care, as well as other related programs.

- ***Title IV-A At-Risk Child Care***: States have the option of expanding the scope of the Family Services Act Title IV-A child care programs via a limited entitlement program (currently capped at $300 million per year). States must match the federal dollars at the state's Medicaid matching rate; with these funds, states can provide early education and child care subsidies to low-income families who, while not a part of the AFDC program, would be at risk of becoming welfare dependent without the subsidy. All participants in this program are required to pay a sliding scale portion of the child care fee.

- ***Special Education Programs***: There are a number of federal programs available to support early education and child care for children with disabilities. For example, in fiscal year 1992, $320 million was targeted for developmentally delayed or at-risk children through the Special Education/Preschool Grants program, and an additional $330 million was available through two other programs—Special Education/State Grants and Special Education/Infants and Toddlers. Also, a significant portion of Chapter 1 funding is targeted for these purposes under the

Education of Handicapped Children in State-Operated or -Supported Schools (the Chapter 1, Elementary and Secondary Education Act, Handicapped provision).

Consolidating some of the funds from the above programs could conquer one of the biggest problems facing the delivery of publicly-funded child care—that is, it could smooth out the disparate eligibility criteria targeting different populations and allow states to match funding to need without administrative interruptions in service delivery. Currently, as mothers move on or off welfare and into job training or employment, child care services often appear or disappear with little regard to the needs of the mother or child.

Consolidating funds into one program should also result in some administrative efficiencies. This is the thinking currently driving proposals on Capitol Hill to merge literally hundreds of federal programs into a few large block grants for crime fighting, food and nutrition programs, and other social welfare services. But many analysts fear that any consolidation promising administrative savings could be a prime target for budget slashing. For these reasons, efforts to eliminate many separate programs for three- and four-year olds, and shift them into one new large program must be accompanied by safeguards that protect the overall availability of child care and early education funding.

Estimating the total amount of funds currently used for three- and four-year olds, and therefore "available" for an expanded early education program, is a difficult task. We estimate that roughly $2 billion is *probably* used for child care and education programs for these children (General Accounting Office October 1994). The estimate is fairly broad and uncertain, because in some cases, programs do not report activities by the age of the child; in other cases, agencies do not separately report type of activity *or* age of the child. It is difficult to identify the portion of At-Risk or AFDC Transitional Child Care, for example, that goes toward educational and developmental programs for three- and four-year olds. For the purposes of these estimates, we will assume that about 40 percent, or $2 billion of the $5 billion spent in non-Head Start funding, is allocated to these two ages. We also assume that these funds would be available only for center-based care. While some of these funds

were previously used in home-based settings, we target the funding exclusively toward center-based care because of the benefits of a structured, developmentally-appropriate educational setting. If the policy is to retain choice of provider, and allow subsidies for home-based care and relative care, that would reduce the amount of funds that are currently available for center-based subsidies.

We estimate, then, that approximately $5 billion ($3 billion from Head Start and $2 billion from other programs combined) is currently expended by the federal government on child-related care and education for three- and four-year olds.

Federal Tax Credits

There are two sizeable federal initiatives that provide tax credits for families in need of child care or early childhood education: the Flexible Spending Account (FSA), which aims to promote employer-sponsored child care; and the Dependent Care Tax Credit (DCTC), which is generally applied for during annual income tax filing. The FSA allows employees to pay for a limited amount of child care with pre-tax wages, thereby reducing the overall cost to the employee. The DCTC is a nonrefundable credit against income tax liability for up to (depending upon the tax bracket) 30 percent of a limited amount of employment-related dependent care expense (Committee for Economic Development 1993).

The Joint Committee on Taxation recently published estimates of the cost of these two programs for fiscal year 1995: $0.6 billion for FSA and $2.7 billion for DCTC, or a total of $3.3 billion (Joint Committee on Taxation 1994). Although these tax credits are available for a broad range of dependent care, we can assume that the greatest portion of these credits -- about three-quarters or $2.5 billion—goes toward defraying the costs of child care for children under the age of five (before they begin kindergarten). We assume that half of this amount would be used for three- and four-year olds. As such, about $1.2 billion would be "available" if the decision were made to disallow the credits for home-based and other child care programs, and apply the full amount to a center-based public school or voucher program.

State Spending

State funds are frequently used to match federal funding, and some states provide additional resources for child-related services. The total amount provided by all the states in 1990 was nearly $2 billion (Adams and Sandfort 1992). Assuming that 15-20 percent of this total is targeted toward education and child care for three- and four-year olds, that means that about $300 to $400 million of state funds were spent on these services in 1990. Given the growth in these programs over the past four years, the states could add an additional $500 million to the total of available federal resources in 1994 terms.

Pooling Resources

In summary, the currently available resources for an expanded preschool program from existing federal and state programs total $6.7 billion. This is displayed in the following figure.

**Figure 12**

| Program | FY 94 Estimate Available for 3-4 Year Olds |
|---|---|
| Head Start | $3.0 |
| Other federal programs | $2.0 |
| State programs/matches | $0.5 |
| Tax credits | $1.2 |
| Total | $6.7 |

**Financing The Shortfall**

Transferring existing public funding would certainly help pay for expanded preschool program, but it would not meet all of the financing requirements. The following shortfalls remain:

Model 1 - $18.8 billion

Model 2 - $6.4 billion

Model 3 - $3.0 billion

A number of options are available to finance the shortfall, and different options may make sense depending upon which model is selected. Below is a menu of potential funding sources.

Local Property Taxes

Local property taxes are currently the major support base for public education from kindergarten through the end of high school, and they could be increased to finance a new preschool program. In the 1989-90 school year, approximately 63 percent of public school funding came from local property taxes (U.S. Department of Education 1993). State contributions supplement local funds, providing counties with a flat rate per pupil.

One major advantage of using the property tax to finance preschool is that is there is a long tradition of its funding education. Also, the property tax is locally determined and administered, which matches well with the local nature of education (local school boards, etc). Public education is typically funded through local bond issues taken directly to the voters. These bond issues—which are ultimately paid through property taxes—are visible and clearly earmarked for schooling. This direct linkage between the service provided and the funding source helps assure a stable funding base.

Another advantage of local property tax financing is that, *within any given district in a state,* this method of funding is relatively progressive. Property taxes are levied at a fixed tax rate per $1,000 of property value. Since property values are likely to be correlated with income and wealth, more affluent citizens within the school district will pay more than others.

From a broader geographic perspective, however, the property tax leads to inequities across regions of a state. Because property taxes vary with wealth, children in well-to-do districts are likely to have more dollars available for their education than children in poorer districts. The disparities can be enormous. While there is more to quality education than just the amount of money spent, adequate resources are a major factor.

Concern over these differentials has led to reforms in certain states in financing education. In Michigan, for example, voters showed overwhelming support for substituting state sales taxes for property taxes. The Michigan state sales tax will be increased 50 percent (from 4 to 6 percent), cigarette taxes will triple, and property owners will see a near $2 billion reduction in property taxes. This type of action places a priority on *equity in spending per child*, even at the expense of using more regressive funding sources. In other words, equal spending per child takes precedent over relating financing to ability to pay.

Other states are following Michigan's lead, and more than half the states are battling these issues in court, as civil rights groups and others are charging that the traditional mechanism for financing public schools results in gross inequities between rich and poor districts.

State Funds

Raising new money at the state level is always a difficult task, but there are a few possible methods: increasing state income tax rates; sales taxes; or excise taxes on certain products. In addition, the state budget could be adjusted and funds shifted from existing state programs.

Yet another method of financing new programs in many states is through lottery proceeds. A wide range of programs is currently funded through this source, from prescription drug programs for the elderly to new prisons and state-wide capital improvements. Lottery proceeds are unpredictable from year to year, however, and they are generally regressive, weighted toward lower-income participants who can least afford to play the games.

Federal Funds

With an emphasis on reducing the federal deficit, it is very difficult to propose federal spending for new programs. If the will were there, however, new money could be provided through the "usual" methods of increasing income taxes, excise taxes, or readjusting federal budget priorities (again, requiring cuts in other programs).

Another option would be to increase *payroll* taxes from workers and employers. This could be accomplished by increasing the payroll tax rate, or raising the base of income to which the payroll tax is applied. These funds could be placed in a trust fund, similar to the Social Security trust fund, but earmarked for early childhood education. The chief advantage of this approach is that it would provide a stable, reliable funding base that is largely insulated from ongoing cuts in the discretionary part of the federal budget. As with other types of tax increases, however, there would be political resistance, and payroll tax increases may have an adverse effect on employment by raising the cost of labor. In addition, the payroll tax is generally used to fund work-related benefits (old-age, disability, and unemployment benefits), while early childhood education is a general social benefit.

Mechanisms for Transferring Funds

Funds collected by the federal government (through a payroll tax, income tax, or other source) could be transferred to the states through existing funding mechanisms such as Chapter 1. Through Chapter 1, federal funds currently provide local school districts with supplementary compensatory education services for disadvantaged elementary and secondary school students, and other students with special education needs. That is, they are carefully targeted to children with specific needs, and money is allocated on the basis of a formula. Expanding Chapte to fund preschool education has the advantage of allowing the federal government to allocate resources appropriately across states and districts.

Another mechanism for transferring funds is through matching grants. The federal government would provide up to half the needed dollars, and states and localities would need to match these grants dollar-for-dollar in order to have a fully funded program. This

approach builds on the federal system of inter-governmental shared responsibility, and should not place an inordinate burden on any one level of government. A disadvantage is that some states would be unable or unwilling to match the federal dollars, creating geographic inequities and threatening the viability of the program.

Suggested Funding Sources By Design

The "best" funding sources and mechanisms depend on the design of the preschool program. Funding sources that are appropriate for a voucher program, for example, might not make sense for a universal public school based model, and vice versa.

Since Model 1 is the natural extension of the existing public school model—that is, it merely lowers the starting age for free public education—it would seem appropriate to finance it the same way kindergarten through grade 12 is financed, primarily through local property taxes. (Local financing is supplemented by some state funds, and to a lesser degree, the federal government.) Using this method would cement the new preschool program into the public educational system and spread the onus for paying for the new services across an entire community.

While the property tax appears to be the most rational approach for financing *ongoing* operations under Model 1, the federal government could assist with start-up costs, capital improvements, retrofitting physical plants, and teacher training (assisting private sector teachers and other staff in their transition to the public sector). And states could contribute by raising revenues through small excise tax or general sales tax increases. Again, this would mesh well with the state's supportive role, and the federal government's limited role, in primary and secondary education.

Needed funds for Model 2 could be financed in the same way, but because this model does not provide "free" services to nonpoor residents, the property tax is likely to generate more resistance from local property owners, who tend to fall in the nonpoor categories themselves. Since Model 2's financing is targeted to the poor and near-poor, the spirit of

the public school-based property tax would largely be altered, and consequently it may not be the best financing option. Resistance to an increased property tax would be even greater under Model 3, which also targets the poor and near-poor, but does not utilize the public schools at all.

Alternative funding sources for Model 2 closely resemble financing options for Model 3, since both programs essentially offer a similar set of services to the same target populations, albeit in different settings. These include the state and federal sources discussed above.

The method of financing, then, rests heavily upon the choice of model. Model 1 lends itself toward local financing with only marginal or specialized support from states and federal government. Models 2 and 3 depend more on federal and state support. Since these models have a much smaller public price tag than Model 1, a larger portion of their total costs are covered by the existing base of child care and early education program funding.

## XI. ANALYSIS

The study team developed three critical goals for an expanded early childhood education system for three- and four- year olds. A new program should: 1) be accessible to all who are interested in enrolling; 2) develop children's readiness to enter elementary school; and 3) provide a rich complement of services for children who are at risk of school failure. We then developed three different models that meet these goals.

**Model 1 -** a public school-based program in which core classes are available and free regardless of income (similar to kindergarten), with wrap-around hours available on a sliding scale fee basis.

**Model 2 -** a public school-based program in which core and wrap-around hours are free for families with income up to 133 percent of poverty, available on a sliding scale basis for families between 134 and 185 percent of poverty, and requiring the full fee from those with income above 185 percent of poverty.

**Model 3 -** a publicly funded program whereby families with income up to 185 percent of poverty are given vouchers to use in an approved, private preschool of their choice; the voucher is worth the average area preschool fee for families up to 133 percent of poverty, and a declining portion of that amount for families up to 185 percent of poverty.

Despite the fact that each model was designed to meet the above goals, there are significant differences among them. Each has important advantages and disadvantages that must be weighed before one can truly evaluate each option's merits. Each would result in different rates of participation, and each has different cost and financing requirements. Furthermore, there are important "nonmeasurable" factors to consider, such as implications for quality control and political feasibility. Also, each model reflects a different philosophy about the appropriate venue for preschool education, the role of government in supporting such

education, and the notion of school choice and parents' rights. These and other issues are discussed and analyzed below.

**Access/Participation Rates**

Models 1, 2, and 3 were designed in part to ensure that children who were at risk of school failure were not denied access to a quality preschool program based on their family's ability to pay. As such, each model afforded all families with household incomes up to 133 percent of the federal poverty line (considered here as "poor" and "near-poor") the ability to send their three- and four-year old children to preschool, completely free-of-charge to the family. In Model 1, the core program is free to all. Under Models 2 and 3, there is a partial (sliding scale) subsidy for families between 133 percent and 185 percent of income (considered "low/moderate-income"), and no subsidy for those above 185 percent of poverty ("nonpoor"). As a result, there are similar estimated participation rates for poor and near-poor children across the models, but very different rates for low-income and nonpoor children.

Figure 13 presents estimated percentages of all three- and four-year old children participating in either public or private preschools under each model. Not surprisingly, Model 1 with its part-time program, free regardless of income, attracts the highest number of participants—about three-quarters of all three- and four-year olds, and nearly 90 percent of four-year olds alone. The Model 3 voucher program has the lowest participation rates—just over half of all three- and four-year olds. All of the models show an improvement over current preschool attendance, though Model 1 would clearly be most preferable if universal participation were a main objective.

**Figure 13**

| Percent of All Children Participating in Public or Private Preschool | | | |
|---|---|---|---|
| | 3 yr olds | 4 yr olds | 3 and 4 year olds |
| Model 1 | 60 | 89 | 74 |
| Model 2 | 48 | 77 | 62 |
| Model 3 | 43 | 68 | 55 |
| Current | 30 | 55 | 43 |

The differences in participation rates change dimension in Figures 14, 15, and 16, which demonstrate participation rates by income level (the first two income tiers are combined since they provide identical subsidies to individuals who do not have the financial resources to pay for private alternatives on their own).

**Figure 14**

| Percent of Poor or Near-Poor Children Participating in Public or Private Preschool *(up to 133 percent of poverty)* | | | |
|---|---|---|---|
| | 3 yr olds | 4 yr olds | 3 and 4 year olds |
| Model 1 | 55 | 80 | 67 |
| Model 2 | 55 | 80 | 67 |
| Model 3 | 50 | 75 | 62 |

For example, Figure 15 demonstrates that both public school-based models result in identical participation rates for poor and nonpoor children, with Model 3 resulting in only slightly lower rates. These lower rates occur because of the presumed convenience, comfort,

and ease of registration/accessibility of the public school model as opposed to the private market; we have assumed a small drop-off in participation due to the "difficulties" of surveying and selecting appropriate preschool options under Model 3.

**Figure 15**

**Percent of Low/Moderate-Income Children Participating in Public or Private Preschool**
*(134-185 percent of poverty)*

| | 3 yr olds | 4 yr olds | 3 and 4 year olds |
|---|---|---|---|
| Model 1 | 55 | 85 | 70 |
| Model 2 | 40 | 75 | 57 |
| Model 3 | 40 | 65 | 52 |

As income rises, however, the differences between the models become more apparent. Model 1 continues to attract high numbers of participants, primarily because of the free nature of the core program. But as income rises, so do associated fees under Models 2 and 3. Many families in the partially subsidized group (shown in Figure 15) and the nonsubsidized group (shown in Figure 16) will find cost a barrier to enrollment. Where the public financing in Model 1 would serve as an incentive to enroll children in center-based care, the fee structure in Models 2 and 3 would be a disincentive. Consequently, participation is lower as subsidies decline. (Of course, within the nonpoor income group, participation in preschool would increase as family income rises, as is the case today.)

**Figure 16**

| Percent of Nonpoor Children Participating in Public or Private Preschool *(Above 185 percent of poverty)* | | | |
|---|---|---|---|
| | 3 yr olds | 4 yr olds | 3 and 4 year olds |
| Model 1 | 65 | 95 | 80 |
| Model 2 | 45 | 75 | 60 |
| Model 3 | 40 | 65 | 52 |

Thus, the lower participation rates in Models 2 and 3 come almost exclusively from nonpoor families for whom preschool fees would be deemed too onerous. Under these two models, early childhood education would remain beyond the reach of many middle-class children.

Cost

As mentioned above, if the goal is to maximize participation among all income groups, the choice of Model 1 as the "preferred" alternative is clear. But this choice carries with it significant costs. Model 1 is an expensive option, requiring nearly $19 billion in new public funding. It must be stressed, however, that the bulk of the cost of Model 1 does not represent brand new spending for preschool, but rather a *shift* in spending from direct family outlays (and some existing public outlays) to a fully funded public program.

As was discussed in Section II, families currently devote at least $13.9 billion to child care and early education services for three- and four-year olds. Thus, Model 1's public shortfall of $18.8 billion represents a *net* shortfall of about $4.9 billion—and a shift of nearly $14 billion currently paid by the private sector to the public sector. Since public expenses are paid (through tax revenues) by a broad base of contributors, costs would go down for many families with three- and four-year olds who are now paying the full cost of these services

out-of-pocket. It would also likely result in an across-the-board increase in property taxes, with the per-child cost of these services spread across an entire community.

Model 2's costs are about one-third the costs of Model 1; Model 3's requirements for new public funding are only about one-sixth of those of Model 1. New funding requirements are displayed in Figure 17.

Figure 17

| New Funding Requirements (billions of 1994 dollars) | |
|---|---|
| Model 1 | $18.8 |
| Model 2 | $6.4 |
| Model 3 | $3.0 |

Mix of Children Served

The features of the three models have different implications for the integration of children from different income groups in the same preschool classes. Regardless of the best or preferred mix, it appears that Models 1 and 3 promise a greater degree of integration across income categories than Model 2. Model 1's free core program would attract higher-income families as well as lower-income families, so the class mix would look similar to those in today's elementary schools. Of course, income groups would continue to be segregated to the extent that elementary school neighborhoods are segregated by income.

Model 3 would offer poor and near-poor families the opportunity to use their vouchers in any approved preschool. In theory, these children would attend the same preschools as higher-income children. Again, to the extent that neighborhoods are segregated by income, and families are less able or willing to travel longer distances to preschools in other areas,

there would still be some segregation. But those parents who can overcome logistical inconveniences will have more control over the "mix" in their child's preschool class.

Model 2 differs from the other models in that the fee structure would likely lead to a much larger portion of poor and near-poor children attending the public school program than higher-income children. There are a few advantages of the public school program to higher-income families: the neighborhood location could be convenient, and it would require fewer changes for the child (that is, he or she would stay at the same school when entering kindergarten). But given that these families would have to pay the full cost out of pocket, there is no *financial* advantage to sending their children to the elementary school over private preschool. And if the public school program develops a reputation as a "poor kids" program, income segregation could be exacerbated. The result would resemble an expanded Head Start program that is housed in the public schools. While not necessarily a negative outcome, it would not achieve the universality that a public school-based program suggests.

**Quality And Quality Control**

The design of the three models and the cost estimates associated with those models assume the operation of a high-quality preschool program. The General Accounting Office cost estimates for the average cost of (a sample of) private sector programs is based on accredited programs that meet some quality standards. Likewise, the public school options are based on a high-quality, Head Start program. Each of the models includes supplemental and supportive services targeted toward children at risk of school failure.

The design and cost estimates notwithstanding, there are some serious considerations about the quality of the expanded early childhood education programs. The issues of quality and of quality assurance differ across models, but they are particularly stark between the voucher option and the two public school-based options.

In Models 1 and 2, the creation of a high-quality product may or may not result, over time, in a high-quality program. For a variety of reasons, many public schools are experiencing

quality-related problems that, while not as serious in the early grades, can still present certain obstacles. It is likely, for example, that a public school-based preschool will exhibit many of the strengths and weaknesses of a public school-based elementary school.

From district to district—and often even from school to school—the quality of educational programs can be extremely uneven. Some schools offer outstanding programs, with dedicated, experienced teachers and other staff, accommodating facilities, and ample supplies and supportive services. Within such a school, a preschool is likely to flourish and result in an excellent center for early childhood education.

If, however, a school cannot attract well-trained and experienced teachers, if the physical plant is badly in need of repair, or if the support services are scarce or perhaps nonexistent, the overall quality of the school and consequently the preschool will suffer. And, if the school is experiencing these problems in its upper grades, it is less likely to have the resources (or sometimes the interest) to expend the required effort monitoring the quality of its preschool programs. In these cases, the academic, social, and developmental education of the child will be at risk.

In both cases, the quality of the preschool dovetails the quality of the elementary school, or in some cases the larger system to which it is attached. If that school is good, there is a good chance that the preschool will also be of high quality. If it is not, and if the preschool is located within the same facility or on the same campus, there could be serious quality concerns.

Some oversight body could conduct site visits to prepare evaluations of the public preschool programs, and these would help teachers and administrators improve their programs and make adjustments to better meet the children's needs. But unlike the situation in the private market, where lack of accreditation could mean lack of enrollment (under a system that required accreditation for public subsidies), parents of children in lower quality preschools may, due to financial constraints, be unable to switch to another option.

In Model 3, quality can be even more varied. Private programs run the gamut from very high to very low quality, and while most states attempt to regulate quality from a safety perspective via licensure requirements, oversight appears to be weak in most areas of the country. Even if accreditation were required for receipt of public subsidies, it is likely that the private sector would exhibit a fairly broad range of experience with respect to quality of program. There would continue to be a broad range of teacher salaries, for example, which on average would be much lower than under the public school model. The high turnover associated with low salaries currently seen in many private preschools would continue under Model 3.

This uneven quality, across literally thousands of free-standing preschools throughout the country, could create a regulatory nightmare under a quality assurance program. It is more likely that, given the nature of the private preschool market (with lots of small centers, many of which are free-standing), Model 3 would rely on parents' "voting with their feet." In a system of voucher-based subsidies tied to 100 percent of the average market rate, families would be able to choose the program that best meets their own set of preferences; if the quality were low, or other variables were not in line with these preferences, families could choose a different program.

Thus, the uneven quality of preschool programs would not necessarily be a problem if families could freely choose and switch programs based on preference. If, however, lower-quality programs were not randomly distributed among communities—that is, if they were concentrated in lower-income communities—it would be likely that some families in that community would remain in a lower-quality center for logistical reasons. This problem exists today within our current preschool market.

The problem could be mitigated to some extent, given Model 3's pegging the subsidy at 100 percent of the average market rate. This would allow centers even in very low-income areas to attract sufficient numbers of children, and should provide adequate revenues since these children would "pay" the full cost of the program. Model 3, then, should improve the current

situation, but it will nevertheless continue to be characterized by its pluralism—different programs, sizes, teaching philosophies, and quality of program. Some will count this as a strength; others as a weakness.

**Values And Philosophy**

Choosing a method to expand preschool opportunities depends as much on intangible factors such as values and philosophy as it does on dollars and cents. This country is quite divided on the appropriate role of the government, with many looking to the public sector to provide basic services, and others looking to government to provide merely a safety net for those unable to make it in the private market. Education can fall anywhere along this spectrum. Primary and secondary education in this country, however, has been deemed to be a public good, and public schools are by far the dominant mode. Fewer than 10 percent of children (in 1993) were enrolled in independent schools (Bureau of the Census 1994).

Philosophically, many would agree that the public schools represent the appropriate site and system for preschoolers as well. Model 1, therefore, could be viewed as an appropriate adjustment to the public school system to close the gap that it created by beginning schooling at age five or six.

But despite agreement about the importance of a "free" and accessible education for all American children, there is growing distrust of public institutions and the ability of government to efficiently deliver high-quality services. For example, while many Americans might be attracted to Model 1 for its near-universal participation, some would undoubtedly question whether "deprivatizing" early education makes sense. Thus, there are two fundamental issues at play in the design and financing of an expanded early education system. First, should the government pay for the services, and in the process spread the costs across communities, states, or the nation through taxes; and second, should the government be in the business of delivering the services? Communities across the country remain divided on these fundamental issues.

## Political Feasibility And Resistance To Change

Any discussion about a program that would require a new investment of upwards of $19 billion each year, even if the funding were spread across every community in the country, must be placed at some point in a political context. And it is clear from the results of our most recent elections that the political landscape does not appear friendly to large infusions of new public capital into social programs. On the contrary, there are serious efforts underway to shrink—not expand—the size and scope of federal, state, and perhaps local government responsibility. At the same time, there is much discussion about cutting programs for *poor* Americans, and for helping the middle class.

Model 1, which would require by far the greatest public contribution, would face most resistance from a financing perspective but it is the only model of the three that offers a new benefit to the middle class. Models 2 and 3 are much less expensive to the government, but they have the political disadvantage of targeting poor and near-poor children.

There are other political factors as well. Currently, the private preschool market is the principal market for most parents of preschoolers. Adopting Model 1, then, could greatly disrupt an existing market and labor pool. There would likely be an enormous amount of resistance from the private preschool industry, despite the ability of some private preschool teachers to become employed within the new public school system. The market resistance could be anticipated, with programs and funding in place to help smooth the transition and assist center-based workers to retrain for other types of employment. One option could be to include incentives for private caregivers to shift their business more toward infants and toddlers up to the age of three, where there is a serious shortage of quality arrangements.

Model 2, which would pose a smaller threat to the private preschool market, would engender some opposition as well, though to a lesser degree. Only the Model 3 voucher program, which would infuse the private preschool market with a tremendous number of new children and dollars, would have the strong support of the private preschool industry.

In summary, each of the preschool models developed and assessed in this report has merits and drawbacks. While all three models offer improvements over our current system, it appears that Models 1 and 3 are stronger options than Model 2. Model 1 is expensive, but it goes farthest toward making preschool universal. It would firmly embed early education into the public school system, and the vast majority of three- and four-year olds from all income levels would likely participate. Model 3 sacrifices universality, but it requires the least new funding, and would benefit those children most at risk of school failure.

## XII. CONCLUSION

With welfare reform placed front and center before the American people, now is the ideal moment to suggest ways to better prepare children—especially poor children, and children at risk of school failure—to handle their responsibilities as students and eventually as productive citizens. As more and more single mothers are transitioned from welfare to work, high-quality child care and early education programs must be in place to facilitate that transition, and create a climate that is more conducive to retaining employment. These are important *first steps* to developing comprehensive welfare reform. This is not to say, however, that persuading the public sector and the American public to support higher taxes in any form would not be a difficult task.

There are the very real practical problems of how to finance these programs. The price tags pinned to the three alternatives may cause some to view these models as unrealistic; others might attempt to pare down the target populations, or the kinds of services offered, to develop a bargain brand of preschool.

Many school districts and federal programs, for example, are forced to practice a form of "triage" by reserving most preschool slots for four-year olds. Due to funding constraints, Head Start offers enrollment to four-year olds over three-year olds by a rate of about four to one. By targeting just one age group, only about one-third of all eligible children end up enrolling in the program.

The financial and logistical constraints driving these decisions are real, but again, so are the forgone benefits of not including younger children. Through our interviews and site visits, as well as our analysis of the French École Maternelle, we were persuaded that preschool opportunities should also be made available to three-year olds—in part because they begin acclimating themselves to the classroom and to peers at a younger age, and in part because of the demonstrated added benefit of being in school for a longer time regardless of starting age.

It is possible to phase in subsidized preschool, beginning with older children and adding younger children in over time. With space at a premium, Braxton County's program reflects a clear decision to handle all interested four-year olds first. They are slowly moving toward bringing three-year olds into the classroom as well. The risk of a phased-in approach, of course, is that future financial or political constraints would preclude completion of the phase-in schedule.

We also strongly advise against narrowing eligibility for the subsidy (for example, from 133 percent of poverty to 100 percent or below), or eliminating some of the services in the enriched program available to at-risk children. These changes would result in a system that could still be an incremental improvement over our current early childhood education programming, but it would not meet the critical goals of significantly broadening enrollment, approaching universality, and providing needed "extra" educational, social and developmental experiences for children at risk of school failure. To develop a core of young children who are ready to learn when they enter kindergarten and the early grades, the basic features that define each of these models must not be compromised.

While the cost of a new preschool program poses a major hurdle, it is essential for Americans to understand that the estimates presented in this report represent only a partial analysis. These estimates do not take into account the *benefits* that accrue over time—not only to the education system, but also to the criminal justice system, the social welfare system, national and state tax bases, and the business sector. The High/Scope example demonstrated that the benefits of a high-quality preschool program extend well beyond formal schooling into adulthood, with apparent effects on earnings, home ownership, and marital and childbearing status. Many of these effects have either been duplicated or approached in other studies.

These benefits, though extremely difficult to quantify, are just as *real* as the costs associated with expanding the program. They represent the opportunity "dollars" associated with better long-term educational, social, and employment outcomes. Thus, the considerable costs of

providing early education to three- and four-year olds is better viewed as an investment in the future, with a tremendous long-term payoff.

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