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ABSTRACT

This report on prekindergarten programs in North Carolina in 1988 presents information from the first statewide survey of public school administrators concerning the incorporation of 3- and 4-year-olds into public schools. Superintendents and principals were asked to provide factual data on their districts and schools and to express their opinions about types of programs, desired staffing, adult/child ratios, organization, financing, and the adequacy of existing facilities to accommodate prekindergarten children. The questionnaire was designed to cover issues of most concern to policymakers considering public school-based prekindergarten programs. A strong undercurrent in administrators' comments concerned the fact that many children suffer because their families experience difficulties in caring for them. It is maintained that prekindergarten programs can be defined as child-focused rescue missions that help inadequately prepared youngsters function in ordinary school programs. Prekindergarten programs can be designed to support families and enhance cooperation between home and school. Schools can be conceptualized as key elements in a family support system that encompasses such outreach activities as prekindergarten programs, parent education, technical assistance to family day care homes, and before- and after-school care. (RH)

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**Pre-Kindergarten Programs
in North Carolina:
Preferences of
Superintendents and Principals**

**Sally A. Lubeck and Patricia M. Garrett
Frank Porter Graham Child Development Center
University of North Carolina at Chapel Hill
300 NCNB Plaza
Chapel Hill, NC 27599-8040
(919) 962-7363**

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This report presents results of a survey of superintendents and principals throughout the State of North Carolina in Fall, 1988. School administrators were asked to provide factual information on their districts and schools, as well as to express their opinions about types of programs, desired staffing, adult/child ratios, organization, and financing, and the adequacy of existing facilities to accommodate pre-kindergarten children. An overwhelming majority of superintendents (93%) and principals (84%) surveyed responded.

MAJOR FINDINGS

Which populations of pre-kindergartners should public school-based programs serve? The vast majority of superintendents (82%) and principals (72%) favor programs for at-risk pre-kindergartners. Most superintendents (70%) and principals (60%) favor programs for handicapped youngsters. A majority (approximately 60%) of administrators support public school-based programs for all 4-year-olds, but a minority (less than 30%) want both 3- and 4-year-olds in public schools. A decided minority (12%) do not want any pre-kindergarten programs at all. Most supporters do not embrace pre-kindergarten programs as inherently desirable, and most opponents expressed tactical, rather than philosophical, objections to such programming. There is substantial difference of opinion among administrators in North Carolina.

How should pre-kindergarten programs be organized? In general, administrators want certified teachers to be in charge of classrooms, and they stress the importance of special training in child development or early childhood education. Most (more than 75%) favor an adult/child ratio of 1:10 or better. A majority (about 60%) thinks that programs should be funded exclusively with public monies, but a substantial minority believes that parents using the program should help offset costs. The vast majority (more than 80%) of administrators believes that space limitations make it difficult or impossible to accommodate pre-kindergartners in current school facilities.

How much would direct classroom instruction in pre-kindergarten programs cost? If the adult/child ratio were 1:8 in a program for at risk/handicapped 3- and 4-year-olds, direct classroom instructional costs would range from \$3000 to \$4000 per child for the current academic year. If programs were open to all 4-year-olds and if the adult/child ratio were 1:10, direct instructional cost per student would be between \$2000 and \$3000. Per capita direct instructional cost for a full-day, full-year program would run approximately \$4000 for all 4-year-olds and \$5000 for special needs children. Additional costs would be incurred to build facilities, equip schools, develop curricula, train staff,

provide ancillary services, and supply on-going programatic activities. Information is not available to elaborate costs other than for direct classroom instruction.

MAJOR RECOMMENDATIONS

Develop a long-range plan to use elementary schools as community centers. School administrators express concern that many families are finding it difficult to care for children. The public school system is the only institution with the potential to integrate a state-wide family support system. Schools can implement: outreach activities, including parent education; resource centers; and technical support to family daycare homes. They can provide pre-kindergarten education, but also before- and after-school care and summer vacation programs, especially for the children of working parents. A comprehensive program should be family-centered and concerned with children of all ages.

Focus initially on programs for children with special needs. Families with limited incomes, lack of English proficiency, or a child with a handicapping condition are most in need of assistance. Integrate programs for children and families, coordinating services of different agencies. Pilot programs should either limit participation to special needs children or ensure that they are over-represented among participants.

Recognize that space limits conventional programming. In developing pilot programs, emphasize innovative projects which can serve as models for future innovation. Consider a wide range of alternatives which meet local needs, including Early Education Centers for children 3 to 5 and cooperative public/private programs.

Initiate teacher training and staff development immediately. Develop early childhood education (3-5) training and certification programs in schools of education and departments of home economics. Include both certified teachers and experienced childcare providers in staff development efforts and coordinate with daycare centers to field test developmentally-appropriate curricula.

Develop a viable budgetary strategy. Consider a publicly-funded program to run during the academic day and year, supplemented by a privately-funded extended day and year program. Design a sliding fee scale so that low- and moderate-income families can be served.

Introduction

This pamphlet reports results of what is, to our knowledge, the first statewide survey of public school administrators concerning the incorporation of 3- and 4-year-old children into the public schools. Public school administrators have a unique perspective on the desirability and feasibility of implementing a policy of public schooling for pre-kindergartners. It is they who are critically aware of the needs and resources of their schools and communities, and it is they who would be responsible for implementing a mandated school-based program. Nevertheless, systematic data have not been presented for any state about what school superintendents and principals think.

In North Carolina, legislation is now pending to implement a pilot pre-kindergarten program under the auspices of the State Board of Education. In this context, funding from the Z. Smith Reynolds Foundation supported a survey of superintendents and principals in the state.

The overall objective of the study was to understand what administrators think about a policy which would incorporate pre-kindergartners into the public schools. The study addressed three main themes:

- 1) preferences for type of programs;
- 2) desired staffing, ratios, organization, and financing of programs; and
- 3) the adequacy of existing facilities to accommodate younger children.

This pamphlet reports the results of this study. It presents factual information about schools and districts and the opinions of the administrators surveyed. Based on parameters defined by a majority of administrators, direct classroom instructional costs to provide services to different populations of pre-kindergartners in North Carolina are estimated. The conclusion explains why North Carolina is in a unique position to implement a truly innovative early education initiative.

The Study

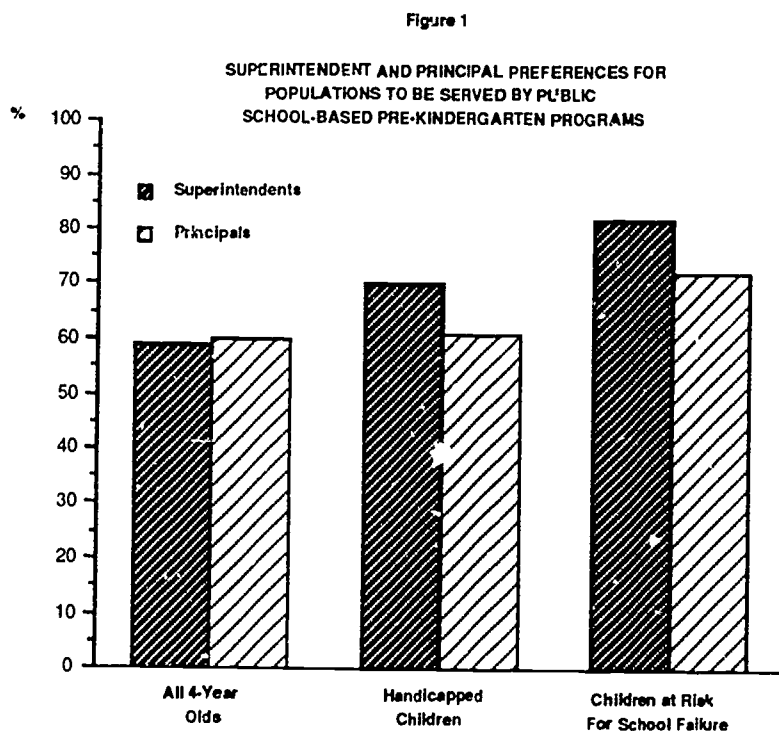
A questionnaire was designed to cover issues which are of most concern to policymakers considering public school-based programs for pre-kindergartners. The survey was sent, during Fall 1988, to all superintendents and to a random sample of principals. Fully 93 percent of

the superintendents (N=130) and 84 percent of the principals (N=290) responded. These response rates are exceptionally high, suggesting that the educational community has an intense interest in this topic. The high response rates also mean that the opinions of those studied are likely to reflect the opinions of all superintendents and elementary principals in the state, both those included in the sample and those who did not receive a questionnaire.

School administrators are not single-minded. There are commonalities but also important differences of opinion, which will be explained in this report. The majority of superintendents (63%) and principals (61%) used available space to include comments or to answer an open-ended question. Their commentaries provide insight into concerns registered by public school administrators in the state.

Preferences for Types of Programs

Most administrators believe that the public schools should provide services to some segment of the pre-kindergarten population. The kinds of initiatives they support are illustrated in Figure 1.



Source: Frank Porter Graham Survey of North Carolina Superintendents (N=130) and Principals (N=290): Fall, 1988.

Should the Public Schools Serve All 4-Year-Olds?

A majority of both superintendents and principals, approximately 60%, support public school-based programs for all 4-year-olds. This support was broad-based. Statistical analysis did not reveal differences in the opinions of administrators in the east, west or Piedmont regions, in predominantly urban or rural districts, or in affluent or poor counties. Experience with pre-kindergarten programs in districts or schools made no difference in the program preference of administrators.

Neither the proportion of mothers in the county labor force nor the availability of licensed child care in the county had any effect on the opinions of superintendents and principals. Administrators in regions with a high potential demand for public school services for all 4-year-olds were neither more or less likely to support such programs than their counterparts in districts with very different characteristics. The data suggest that the opinions of educational administrators derive more from educational philosophy than from the specific needs of their communities.

A majority (54%) of the superintendents reported that there were currently preschool programs (Head Start, Chapter 1, programs for handicapped children, etc.) in their districts. Only 14 percent of the principals, however, reported programs in their buildings. Of those who did not have programs, 82 percent indicated that parents had expressed an interest in sending their preschoolers to school, while 30 percent said that many parents had expressed such an interest. Most superintendents (67%) reported that their school districts now have after-school programs for school-age children, while 31 percent reported having before-school programs.

In general, superintendents and principals do not actively embrace pre-kindergarten education as a good in its own right. Many might agree with the superintendent who advocated "good homes with caring parents" as an alternative to pre-kindergarten programs. There are, however, administrators who see such programs as an opportunity to serve children in need:

I am personally now involved in the creation of a 3- and 4-year-old program. Declining enrollment has left us with four empty classrooms. Most of our kids are poor and are at risk for failure. Many of our homes do not offer children the support needed to develop emotionally, socially, and academically. The sooner we get them, the better.

Another principal concurred: "Believing that a child is molded by age 6 or 7, the public school should capitalize on this and mold them in the right way."

Much support is reluctant. One superintendent articulated this reluctance by writing:

There was a time when I would have been totally opposed to public school involvement earlier than five. However, with the changes in our society (breakup of traditional family structure, increase in single parent families, two working parents resulting in 'latch key' youngsters), it seems that something must be done. Since parents either will not or can not fulfill their obligations to children, it appears that government will again have to step into the void.

Opponents of programming for all 4-year-olds represent a substantial minority (approximately 40%) of superintendents and principals. Few support the statement: "It is not appropriate for public schools to become involved in prekindergarten programs." Rather, opposition focuses on the multiple responsibilities of schools and the further dispersal of already scarce resources. One superintendent stated the problem simply: "We have more to do now than we can be expected to do with our present resources and space."

Should the Public Schools Serve Children with Handicapping Conditions?

A majority of superintendents (70%) and principals (60%) support programs for handicapped preschoolers. Willingness to incorporate young handicapped children may reflect administrators' experience with PL 94-142, the Education for the Handicapped Act which authorized funds to provide free public education to all handicapped school-age children. Nevertheless, some administrators indicated that they preferred that handicapped children 3 to 5 receive services through some institution other than the schools.

Administrators who support programs for handicapped pre-kindergartners differ from opponents in two statistically significant ways: 1) the rural population in their counties is higher and 2) they endorse the statement: "A program for preschoolers (0-5) with handicapping conditions would be cost effective in the long run." Nevertheless, the percentage of students in special education programs was not a statistically significant predictor of administrators' opinions.

Data analysis revealed considerable overlap among administrators who support programming for handicapped and at-risk populations. Nevertheless, a substantial minority (20%) of those supporting programs for children at risk for academic failure do not support programs for handicapped youngsters. One principal provided qualified support for handicapped youngsters by adding "if the program would help them."

Commentaries reflect the tendency to link handicapped youngsters with those at risk for academic failure and treat the combined category as children with special needs. One superintendent wrote:

All areas of development are important, especially for disadvantaged and handicapped youngsters. 'Appropriate' preschool programs are difficult to find.

It is unfortunately not possible to explore this theme in detail because commentaries are sparse. It is likely, however, that one superintendent, who enclosed a memo to his superior with his questionnaire, expresses the majority opinion. When requesting additional funds to initiate a program for 40 pre-kindergarten handicapped youngsters, the superintendent begins:

Early intervention with pre-school handicapped children enables educators to discover problems and do something about them before a child's development and early learning are seriously, perhaps permanently, affected.

Should the Public Schools Serve Children at Risk for School Failure?

There is overwhelming support among administrators for serving at-risk preschoolers. A slightly higher proportion of superintendents (82%) than principals (72%) advocate such programs. Support is broad-based across the three regions of the state.

Data analysis indicated that superintendents who supported programs for at-risk children differed from opponents in two statistically significant ways: 1) their districts were more rural, and 2) they contained a higher proportion of students on free or reduced price lunch. It was not the case that their districts had lower expenditures per pupil than other districts. Rather, superintendents focused on the need for remediating services they perceived among their students.

One superintendent anticipated the results of statistical analysis when writing:

Our system has over 50 percent of the elementary population on free/reduced lunch. About 50 percent are from single parent families. Both conditions create educational lag and cause students to be 'at risk' before starting formal education.

Another superintendent reported that half the kindergartners in the district were one or two years below age level on standardized tests:

It is quite obvious that something has to be done from birth to five to improve these conditions. If we do not get into the 3- to 4-year-old program, the children will fail to get the stimulation they need.

Most commentaries focused on the inability of families to provide a stimulating and supportive environment. One principal explained:

I'm sure we are like many other schools in rural North Carolina. We have large numbers of children who come from homes with no emphasis placed on the importance of education. Many children are not ready for kindergarten. With so many working parents, I think 3- and 4-year-old programs are the answer to many school problems.

Another superintendent reported:

The effect of early intervention on school success is well documented. I believe that early intervention therapy, language stimulation, and rich experiences at age three and four will do more to increase the achievement of at-risk children and to reduce dropouts than any amount of money spent at grades seven through twelve.

Some commentaries made it clear, however, that poverty per se was not the problem. One principal asked rhetorically: "What's wrong with being poor? I was."

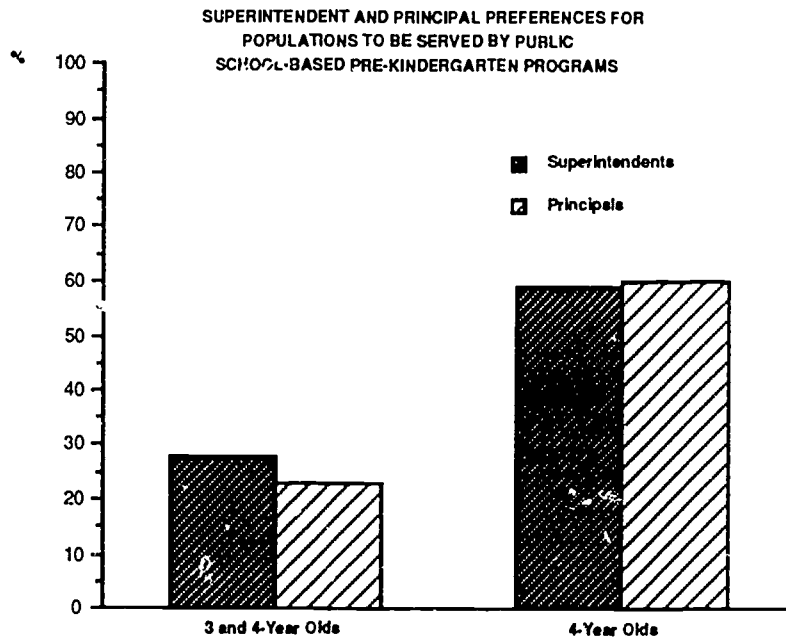
Should the Public Schools Serve All 3-Year-Olds?

As Figure 2 illustrates, the answer of superintendents and principals is a resounding no. Only a minority of superintendents (28%) and principals (23%) think that programs should be developed for 3-year-olds.

One source of opposition was summarized in the slogan: "Let kids be kids for five years!" A superintendent wrote: "Children need some time to be children in an uninhibited surrounding." A principal wrote:

Once public schools are connected with 3- and 4-year-old programs, parents expect students to become students--read, count, etc. Most children are not ready for this structured life style and are being harmed. This shows up later with tired, burned-out children by 8 or 9 years old.

Figure 2



Source: Frank Porter Graham Survey of North Carolina Superintendents (N=130) and Principals (N=290): Fall, 1988.

The singlemost prevalent theme in the commentaries of those opposed to programs for 3s was parental responsibility for raising young children. One principal wrote:

The more local, state, and national governments take over family responsibilities, the education of our youth in this nation will crumble. It has already begun. 3- and 4-year-olds should be the sole responsibility of their parents. If parents of 3- and 4-year-olds want day care as structured programs for their children, they should pay 100 percent of the cost.

A superintendent commented:

I really think 3- and 4-year-olds would best be served in a loving and supportive family environment instead of the public schools. However, this does not always occur for varied reasons. Parents need to take responsibility for their children. However, our society can place them in a 'no win' situation. If America is going to rely on the public schools for day care, we must get into the business of providing quality day care.

One superintendent claimed to have heard it all before:

About seventeen or eighteen years ago, I appeared before a Legislative Committee in Raleigh on behalf of our instituting a kindergarten in our state. The room was packed with people, many expressing the opinion that 5-year-olds were too young to take away from the 'bosom of their mothers." There were school administrators there who actually felt that a 5-year-old would be trampled in the aisles of the school bus and could, therefore, not be safely transported by bus. We argued against these people, feeling that we needed to get children at an earlier age. . . (T)he arguments we faced several years ago do not hold any longer, even for the 4-year-old. I believe we definitely need to move towards a 4-year-old program, and perhaps a 3-year-old program for the disadvantaged. The state can afford this as well or better than it could afford the kindergarten of sixteen years ago, without reducing the efforts and support to the other educational programs.

Desired Staffing, Ratios, Organization, and Financing of Programs

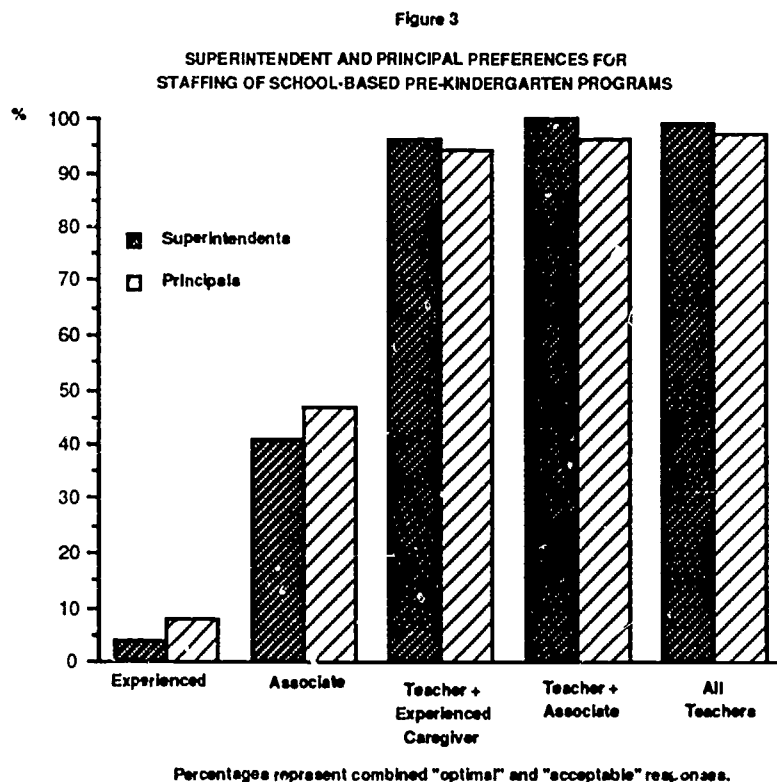
How Should Pre-Kindergarten Programs in the Public Schools be Staffed?

Staffing programs in the public schools is a major problem because the formal preparation and credentials of childcare providers and elementary teachers are radically different. Specialists in child development believe that adults working with young children need training in early childhood education, so that they can organize developmentally appropriate programs. In North Carolina, formal training is provided primarily through the community college system and through Child Development Associate (CDA) training. However, childcare providers do not need to be credentialed to work with preschool-age children, unless they work in a licensed program.

As of July 1988, the State Board of Education approved a Pre-Kindergarten Add-on Certificate to enable elementary school teachers to teach kindergarten or pre-kindergarten. Currently, those holding degrees in early childhood education and home economics (child development) and Child Development Specialists will be eligible for the Add-on Certificate, thereby creating a pool of teachers qualified to work with this population of children.

Most childcare providers have significantly less formal education than most elementary school teachers. Most teachers, however, lack experience with preschoolers. This state of affairs provides the context for interpreting administrators' preferences for staffing alternatives.

The questionnaire listed a variety of staffing options and allowed administrators to indicate whether each alternative was optimal, acceptable, or unacceptable. Figure 3 combines optimal and acceptable responses and illustrates preferences for the various alternatives.



North Carolina administrators express an overwhelming preference to have certified teachers in charge of pre-kindergarten classrooms. A team of certified teachers was generally regarded as the optimal alternative, but a team led by a teacher and including a person certified in early childhood education or an experienced caregiver was also widely acceptable. This simulates an arrangement common in many schools, in which a teacher works with an aide. Both superintendents and principals judged this staffing alternative to be optimal or acceptable.

Administrators also recognize the value of specific training in early childhood, as represented by a junior college associates degree or Child Development Associate training. A substantial minority of superintendents (40%) and principals (47%) considered staffing with such associates to be optimal or acceptable. A team of people with experience working with children but without formal credentials was roundly rejected as an alternative. Most current childcare providers would fall into the category

of experienced but non-credentialed workers, and administrators generally did not consider them qualified to work in a school-based program.

Staff quality was regarded as important. One principal wanted to see the program

in the hands of good teachers who understand developmental levels of children and can provide a program to meet their particular needs. A good training program for all involved is essential.

One principal thought that staff should be limited to "certified/qualified professionals with expertise in child development. These children are at a young and tender age; they need the best." Another observed that "there are not sufficient numbers of trained staff to provide appropriate programs."

Some administrators thought that collaboration with providers was desirable.

The public schools should sponsor and be responsible for the operation of programs for 3- and 4-year-olds. I do not believe these should be in a traditional public school or administered by people not trained in early childhood development. I believe the program should be offered at home where possible and only those students who would be in day care anyway should be brought to centers.

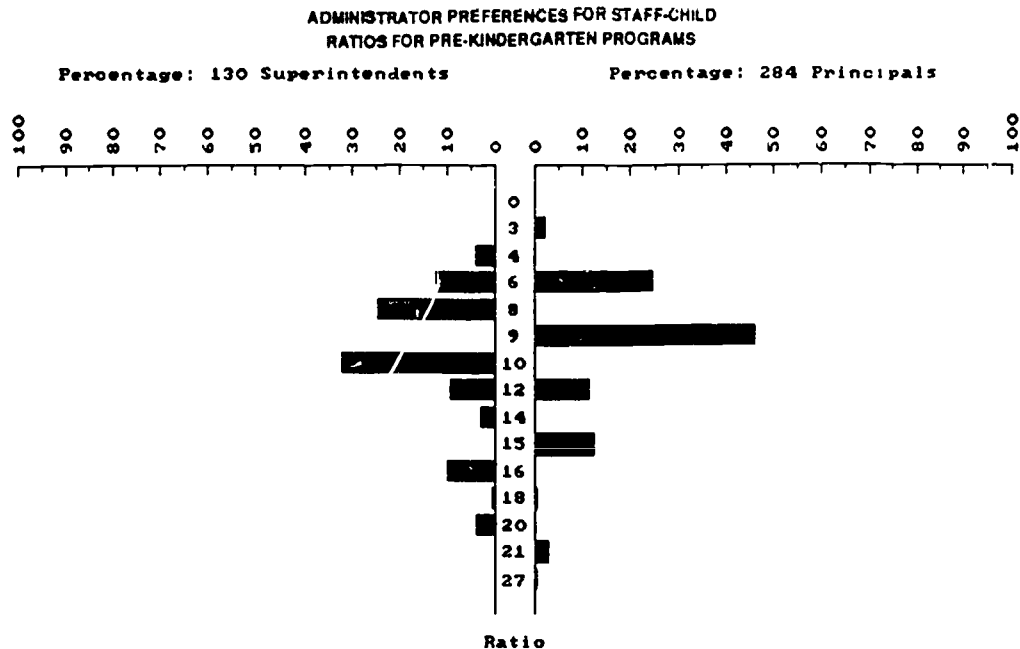
The principal then sketched a complex program including parent training and support, enrichment activities for adults and children, and an extended day program for working parents. The general expectation, however, was that public school-based programs would be physically located in schools and led by certified teachers.

What Staff-Child Ratio Should be Established in Pre-Kindergarten Programs?

Administrators were asked: If you were to develop a program for 3- and 4-year-olds, what staff-child ratio would you desire? The distribution of their responses appears in Figure 4.

A majority (73%) of superintendents and principals responded with a ratio of one adult for each ten children or fewer. The range was a low of 1:3 and a high of 1:27. There were no statistically significant differences in desired adult/child ratio by type of program supported.

Figure 4



Source: Frank Porter Graham Survey of North Carolina Superintendents (N=130) and Principals (N=290): Fall, 1988.

What Classroom Organization Do Administrators Consider Desirable?

Administrators were also asked to consider alternative classroom organizations, basically mixing ages or establishing discrete programs for each age group. Their responses indicate a slight preference for discrete classrooms, but an analysis of the pattern of responses suggests that many administrators perceived little difference in the alternatives. This suggests that administrators had simply not given much thought to questions of program organization.

Some, however, had considered formal organization in the context of curriculum. A principal wrote:

A program of family grouping, varying ages, should be set up for 3- and 4-year-olds rather than being separated. This program should not be a formal academically structured program. It should be begun as a pilot program and be optional, with provisions made for poor families.

Many administrators expressed dissatisfaction with the overly academic content of kindergartens. One principal advocated a program which would "allow children to make choices and learn to structure their own learning. Without this approach in a 3- and 4-year program, the

effort would be wasted." Indeed, some made their support of pre-kindergarten programs contingent on a developmentally appropriate curriculum. Another supported new programs

only if we can guarantee quality programs operated by individuals with a strong background in child development. I am disturbed by what has happened to our kindergartens across the state (mini-first grades). If we will do the same to 3- and 4-year-olds, I definitely want us to stay out of it.

A similar position was expressed by another principal:

If such programs are as developmentally inappropriate and understaffed as many kindergarten programs, I would be strongly opposed to them. Young children do not need academic pressure or large groups, uniformity. They do need low student/teacher ratios, a warm and accepting environment, enriched language experiences, and uniformly excellent learning environments, regardless of socioeconomic status.

One principal opposed public school-based programs precisely because they were likely to become too academic:

Public schools should lend support, consultation, and expertise, where appropriate. However, I feel 3- and 4-year-olds should be housed in a setting designed for their developmental needs. The usual school setting lends itself to becoming more academically oriented than would be appropriate.

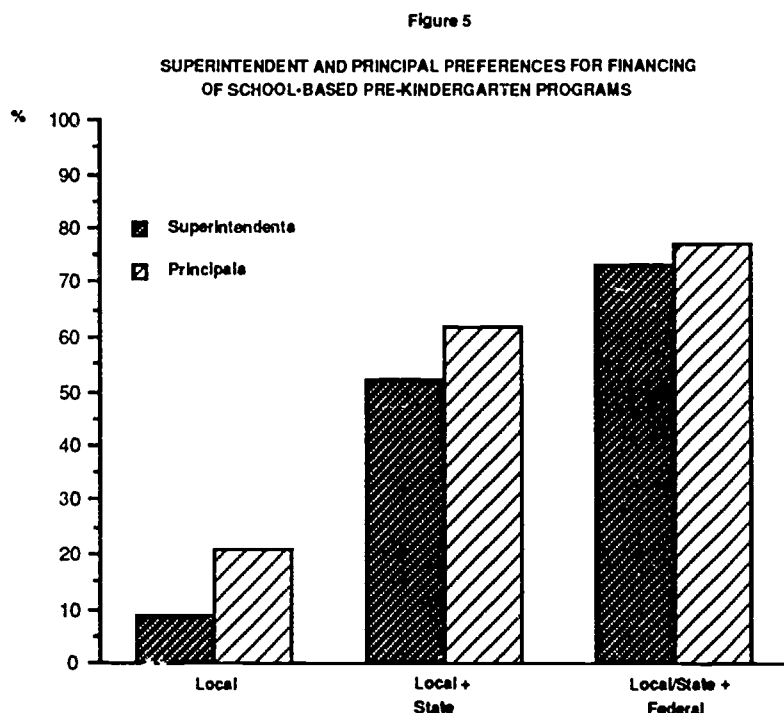
Yet another principal, dissatisfied with the quality of day care available, wrote:

Our public schools are probably our best alternative for instituting quality care. There will have to be a tremendous commitment of resources. Areas which must be addressed are housing, teacher training and materials, and transportation.

How Should Pre-Kindergarten Programs Be Financed?

Both advocates and opponents realize that programming for any segment of the pre-kindergarten population would be expensive. There is virtual unanimity among superintendents (80%) and principals (75%) that taxpayers would not support an increase in the local school tax levy. Administrators were provided with a set of alternatives and asked to indicate how they preferred such programs to be financed. After analyzing the original response categories, a fundamental distinction was made between answers which did and did not contemplate complete public funding of pre-kindergarten programs.

Do administrators advocate that parents pay some or all of the cost of a program, or do they consider such programs part of the expanded services of the public school system? The responses of superintendents and principals regarding public financing are presented in Figure 5.



Source: Frank Porter Graham Survey of North Carolina
Superintendents (N=130) and Principals (N=290); Fall, 1988.

Most administrators (more than 70%) see a role for public financing of preschools. A majority (63% of the superintendents and 58% of the principals) believes that programs should be funded exclusively from public monies. A substantial minority, however, thinks that parents should make some contribution beyond regular taxes to offset program costs. A minority of administrators (27% of superintendents and 24% of principals) believes that public school-based pre-kindergartens should not depend on public funding at all. Approximately 12 percent of administrators do not want pre-kindergarten programs financed by anyone, while another group (15% of superintendents and 12% of principals) wants parents to absorb the entire cost of such programs.

This pattern of responses reflects different understandings about what public school-based pre-kindergartens represent. Those who support parental financial contributions emphasize parental responsibility for pre-kindergarten education. Others insist that public education is tax-supported and, by definition, free.

Some administrators see a link between funding and populations to be served. One principal advocated publicly-funded programs for pragmatic as well as philosophical reasons:

For public education to be supported, it must be for everyone. If you start limiting programs to the select groups that have special needs, you will assure the growth and support of private schools. The public school cannot afford the loss of support of the middle class, who pay the taxes.

Others express strong opinions about financing, as reflected in one principal's commentary: "Keep the federal government out of the picture altogether. This should be a local/state venture."

Another principal, however, wrote:

Adequate funding is essential and cannot come from local units. It would be a great program if the General Assembly makes a commitment, but it should never be started with the expectation that small local units can be expected to pay part of the expenses.

Adequacy of Existing Facilities

Can Pre-Kindergartners Be Accommodated in the Schools of North Carolina?

Administrators agree that large-scale programs for 3- and 4-year-olds cannot be accommodated in existing school facilities. A majority of superintendents claim that it would be difficult (29%) or impossible (67%) to re-allocate space if 4-year-olds enrolled in numbers equal to kindergartners. Principals concur, declaring that it would be difficult (18%) or impossible (65%) for them to accommodate pre-kindergartners by reallocating existing space. A minority of administrators were confident that they had space, while others remained unsure.

Concerns about space are widespread. The vast majority of administrators (88% of superintendents and 81% of principals) indicated that they expected to need additional space within the next ten years to house a growing elementary school population, and many expect the Basic Education Program to require additions to their physical plants.

Some administrators are already pressured by increasing student enrollments and are currently using space not intended for classrooms, such as the area behind a stage in a gymnasium, a book room, or a former

teachers' lounge. Many elementary schools are now using trailers as classrooms. One principal complained

I already have eight trailers, and there is not a space that is not already being used. I have no music or art room, no testing room.

Faced with these situations, some administrators oppose the expansion of public schools: "We need to lower class size for K-6 and provide for a quality program before we try to spread existing resources into new programs." A principal who favored programs only for at-risk students explained:

We still struggle with class size issues and facilities/materials shortages in K-6. To begin a major initiative for 3- and 4-year-olds will drain scarce resources away from programs that are minimally funded now. To lower class sizes at kindergarten, to have special K-1 transitional classes, and classes for at-risk students at the critical 4-6 grade levels seem to me to be a combination of wise choices within our current set-up and would allow elementary schools to complete their mission.

A superintendent in favor of pre-kindergarten programs, however, challenged the assumption that facilities ever precede program.

We have always gotten the programs, whether they be vocational education, exceptional children, kindergarten, etc., improvised with mobile units, fullest use of space, etc., and facilities followed. Therefore, I do not believe that we should hold up beginning a 4-year-old program due to lack of facilities. If we wait until facilities are available, these early childhood programs will never come.

How Much Would Public School-Based Pre-Kindergarten Programs Cost in North Carolina?

The actual costs of any pre-kindergarten program in North Carolina will reflect decisions made jointly by educators, legislators, and citizens. Before such decisions are made, it is possible only to estimate costs by making a series of clear assumptions about coverage and associating costs with distinct program components. The Technical Note (Garrett and Ng'andu, 1989) explains precisely how calculations were made.

Administrators focused on two alternative programs for pre-kindergartners, one serving 3- and 4-year olds with special needs and another serving all 4-year-olds. This section estimates direct classroom instructional costs, exclusive of ancillary professionals (e.g. school psychologists, reading specialists, etc.) who are actually integral to any

educational program. Calculations use the staffing patterns and adult/child ratios that administrators preferred.

Table 1 outlines estimated direct instructional costs for two pre-kindergarten programs. The first program serves all 3- and 4-year-olds with special needs, who are estimated to represent 15 percent of children in North Carolina. A 1:8 adult/child ratio is used in calculations. Estimated direct classroom instructional cost per pupil for an academic day and year program range from about \$3000, if classrooms are staffed by a certified teacher and a Child Development Associate (CDA), to about \$3800 if they are staffed by a team of certified teachers.

If programs ran full day (11 hours), full year, they might be staffed by a certified teacher, assisted by 2 CDA's. The CDAs could work with the smaller number of children who might participate in before and after core time activities. If total group size were 16 and one teacher and two CDAs were assigned to each 16 children, cost per student can be estimated at \$4900.

Assuming that all eligible 3- and 4-year-olds with special needs (an estimated 26,000 children) enrolled, direct teaching staff costs for the current academic year would run between \$76 and \$97 million. Direct instructional costs for a full day, full year program would run approximately \$125 million. These figures represent between 2 and 4 percent of the current annual public school budget.

The second program serves all 4-year-olds. If classrooms were staffed with one adult for every ten children, direct instructional costs for a traditional academic year would vary between \$2400 and \$3000, depending on whether classrooms were staffed with a certified teacher/Child Development Associate (CDA) team or a certified teacher team. If programs ran full day, full year and were staffed with one teacher and two CDAs, as described above, per pupil cost would be nearly \$3900.

Assuming that 90 percent of age-eligible children would be enrolled, one can anticipate about 77,000 4-year-olds in the public schools. The direct costs of providing classroom instruction to this population during the academic year would range between \$183 and \$232 million, depending on staffing arrangements. This represents between 5 and 7 percent of the current public school budget. Direct classroom instructional costs for a full day, full year program would be approximately \$299 million or about 9

percent of the current educational budget. It is unlikely, however, that 90 percent of all 4-year-olds would actually enroll full time.

Other components are also essential to overall program effectiveness. First, staff development will be critical, especially during the establishment of pre-kindergarten programs. Secondly, staff who provide direct classroom instruction must be supported by ancillary professionals (social workers, speech and hearing specialists, etc.) Third, buildings will need to be furnished and equipped with objects appropriate for young children. All this will require substantial initial investments in personnel, curriculum, and physical plant. Fourth, programmatic costs, including supplies, must also be considered. Finally, an outreach worker who can link families with schools and help parents access services can enhance the effectiveness of programs, especially for children with special needs. If an outreach worker could serve 200 children, the per student cost would be as little as \$200 per year per child. Such an expenditure is modest and likely to have a multiplier effect.

It is not possible to estimate total programmatic costs without detailed information on all constituent components. Nevertheless, it is reasonable to assume that direct classroom staff costs would be more than half and less than three-fourths of overall program costs. Accordingly, a full day, full year program serving 15 percent of 3- and 4-year-olds would cost between \$6100 and \$9800 per child or between \$155 and \$249 million. A similar program to serve 90 percent of 4-year-olds would cost between \$4900 and \$7800 or between \$374 and \$598 million.

Conclusion

This report has addressed the question of public pre-kindergarten programs. A strong undercurrent in administrators' comments was that children are suffering because many families experience difficulties in caring for children. These observations suggest that public school programming can adopt two foci. Pre-kindergarten programs can be defined as a child-focused rescue mission helping inadequately prepared youngsters to function in the ordinary school program. Alternatively, they can be designed to support families and enhance the cooperation between home and school during all stages of a child's life.

For schools to serve a broader purpose, a vision of what schools can be is needed. A comparative perspective is useful. Most advanced industrialized nations, especially those with high levels of female employment, make general, even universal, provisions for public

preschools. Preschool programs are one component of a complex network of family support services. Preschools are usually administered by Ministries of Education.

The United States has yet to establish a national family policy, but several child care initiatives are now pending. Twenty-eight states have programs that serve some subgroup of the pre-kindergarten population. Most are for economically disadvantaged children between the ages of 3 and 5. Although Minnesota and Missouri have made a commitment to parent education, no state has adopted plans for a comprehensive family support system to operate in and through schools.

Schools can be conceptualized as key elements in a family support system that might encompass outreach activities, including pre-kindergarten programs, parent education, technical assistance to family daycare homes, and before and after-school care and vacation programs. Such a plan could begin with pre-kindergartens, initially serving children most in need.

Since space is not currently available within public school buildings, North Carolina has a unique opportunity to innovate at the local level. A district might choose to develop a Pre-Kindergarten Center for children 3-5. A school might build a separate facility on the same grounds, buy or rent a house nearby, or initiate a program in conjunction with a local daycare center. Early education teachers could more easily establish curriculum, materials, and equipment appropriate for the education of young children in facilities that are physically separate from school buildings. A home/school coordinator could supervise activities in this setting and provide a vital link between parents and professionals.

As many administrators recognize, specialized training in early childhood education and child development is critical. Similarly, staff need training in leisure time activities (sports, games, crafts, computers, etc.) in order to run before- and after-school and vacation programs. Such activities could be organized cooperatively with community organizations.

Re-structuring schools and broadening their mission will be costly. A viable approach to financing would seem to be publicly-funded programs, which run during the current academic day and year, supplemented by privately-funded extended day and year programs. Only if schools expand their mandate can they begin to address the real needs of children and families in today's complex society.

Table 1
Estimated Direct Classroom Instructional Costs
To Serve Pre-kindergartners in Two Types of Programs

Target Population	All At-Risk and Handicapped 3-and 4-Year Olds			All 4-Year-Olds		
% of Age Eligible Population Served (N=85,255 4's and 85,255 3's)	15%			90%		
Estimated Population Served	25,577			76,730		
Direct Classroom Instruction Cost/Salaries	Academic Day/Year		Full Day/Year	Academic Day/Year		Full Day/Year
	Group Size 16			Group Size 20		
	2 Teachers	Teacher & 1 CDA	Teacher & 2 CDA's	2 Teachers	Teacher & 1 CDA	Teacher & 2 CDA's
	\$3777	\$2991	\$4869	\$3021	\$2392	\$3895
Total Estimated Staff Costs	\$96,604,329	\$76,500,807	\$124,534,413	\$231,801,330	\$183,538,160	\$298,863,350
% of Current Educational Budget (\$3,347,401,711)	2.9%	2.3%	3.7%	6.9%	5.5%	8.9%

The cost of supplies, equipment, construction, staff development, ancillary services, and other necessary program components are not included in estimated costs. Only the classroom personnel explicitly indicated are included in cost estimates.