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Achievement differences of kindergarten students from the alternative and conventional child day care delivery systems

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ACHIEVEMENT DIFFERENCES OF KINDERGARTEN STUDENTS FROM THE ALTERNATIVE AND CONVENTIONAL CHILD DAY CARE DELIVERY SYSTEMS

A DISSERTATION
SUBMITTED TO THE FACULTY OF ATLANTA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

BY

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ABSTRACT
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ACHIEVEMENT DIFFERENCES OF KINDERGARTEN STUDENTS FROM THE
ALTERNATIVE AND CONVENTIONAL CHILD CARE DELIVERY SYSTEMS

Advisor: Madison Foster, Ph. D.

Dissertation Dated May, 1988

The study explored whether combinations of alternative child care arrangements and sociodemographic characteristics were associated with kindergarten achievement similar to the common effects for formal preschool intervention programs. The achievement of preschool nonattenders was compared within the group by the place of child care (in-home or away from home), and among comparison groups (no preschool group, school system preschool group and non-school system preschool group). A sample of 1,456 kindergarten students was selected from among 23 schools. There were 573 students with no preschool, 149 from the school system preschool program and 734 students from the non-school system preschool programs. A Child Care Questionnaire mailed to parents of the no-preschool students was used to collect information on the description and the educational dimensions of the alternative child care arrangements used by parents during the day on weekdays, the year preceding child's enrollment in kindergarten. The results of preassessment and post assessment performance on the Ready Steps Language Survey, the reading and mathematics minimum skills, Getting Ready to Read, progression status, and the California Achievement Tests were used as measures of achievement. The findings indicated that certain combinations of sociodemographic characteristics and educational dimensions of the alternative child care arrangements were associated with a high level of kindergarten achievement, and that kindergarten students with this combination of variables in the alternative child care settings demonstrated a level of achievement equal to the average for students within the same schools who attended formal preschool programs. There was no significant difference in achievement within the no-preschool group, and differences among the comparison groups were identified at preassessment and post assessment in favor of the preschool group.
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CHAPTER I

INTRODUCTION

The Scope of the Problem

Societal changes have resulted in radical transformations in many practices related to the welfare of families and children. Changes in the family structure and role options have implications not only for the education system, but impact the economic and political systems as well.

Although the status of children remains somewhat ambiguous, the phrase "children rights" continues to take on new meaning. More recognition is given to the fact that children are entitled to certain rights and status as a discrete interest group; among these are the basic minimum of health, nutrition, education, and social opportunities. Efforts have been made to secure and protect these basic rights and welfare of children through early welfare services for poor and orphaned children, child labor laws, compulsory school attendance laws, social welfare reforms under the Social Security Act, minimum standards for child care outside of the home, the increasing involvement in child care food programs, day care services, the child care tax credit for parents in the workforce and the tax incentives to employers who provide child care.

With increasing influence of research about the importance of early childhood education, support from national and local education policymakers, and the increasing number of single and dual-parent earners in the workforce, the current attention to child care has become a matter of good public policy.
The issue of child care can no longer be addressed in the traditional dichotomy that children are either at home in the full-time care of their own mother, or they are in quality child care centers.

The importance of child care is most often described in terms of the increasing number of women who are entering the workforce, or in response to the concern of the education system about the readiness level of children to participate in formal education. The concept of day care, however, has developed from the notion of temporary custodial care necessitated by family dysfunctioning, to a day care model which is more concerned with the environment and the set of procedures needed for optimal growth, development, and learning.

Historically, day care was provided as a social service under the auspice of an agency. A casework study was made of the family requesting service and the child needing child care. The mother's decision to use day care was considered a crucial decision.

Day care was also handled as an independent placement, rather than as a social service under the auspice of an agency. Child care was often a private arrangement made by the mother with neighbors, friends, or in answer to newspaper ads by women who wished to give care to children in their family homes. Day care arrangements made outside of an agency sponsorship did not carry the protection of a licensing law with provisions to protect the child's welfare.

Many parents today continue to face the question of how children are to be cared for in the absence of the parents in the home, or the care of children outside of the home. Mothers of young children who are in the
work force by economic necessity or by choice must grapple with the problem of child care arrangements.

According to the 1980 census, about 9 million children under age 6 were from homes in which parents worked full time. The aggregate capacity of the reported, licensed day care facilities in the United States (centers and homes) had a maximum capacity to serve only 10 percent of the need. Consequently, a reasonable conclusion is that a large number of the children of working parents are in a myriad of alternative child care arrangements.

Child care facilities which are most often reported as formal licensed child care facilities are the day care centers, family day care homes, group homes, and foster day care homes.

A day care center in Georgia is any place maintained or conducted under public or private auspices which cares for seven or more children during a part of the 24-hour day. A family day care home is care provided in the caregiver's home for all or part of the day. Day care homes must meet licensing or certification if three or more children are in care for more than five hours per week.

Nursery schools are usually half-day programs for 2 1/2 to 5-year-old children. The program goals are to foster emotional development and to provide socialization experiences. The curriculum is based upon the teacher's concept of child development. Learning occurs through play, with creative activities and materials determining the environment rather than a structured curriculum. Little evaluation information is available for nursery schools. What is available suggests that there is no evidence
of either positive or negative long-term effects of nursery school attendance on school performance.\(^3\)

In day care, the parent retains the basic responsibility for the child and provides care at times when the child is not in the day care setting. The identification of minimum standards for day care services is predicated upon knowledge of what is necessary for the well-being of a child who is cared for outside of his own home.

The minimum standards for child welfare stipulate several classifications of standards: (1) those related to the physical aspects of growth and development in the areas of health, safety, nutrition, and safe outdoor play; (2) those concerned with a desirable psycho-social maturation such as age-appropriate, individualized and group activities; and (3) those which contribute to the achievement of self-realization of the child.\(^4\)

Any other type of child care arrangement which is independent of the parent-child bond and outside of the definition of the formal, licensed child care facilities can be considered an alternative or substitute child care arrangement.

**Historical Context**

Welfare services to children have a long history which dates back to the Elizabethan Era of 1558 in which a system of apprenticeship and indenture was used. During the reign of Queen Elizabeth in 1558, a precedent was set in the definition of responsibility of States for certain disfavored groups within the community, including certain classes of children. The system of indenture and apprenticeship by which a child was bound over to another person or family was used as a means of dealing with children without support. Later almshouses were established to care for children. The practice of apprenticeship of children whose
parents were unable to support them were transported to the colonies and continued into the nineteenth century, even though alternative forms of child care had been developed.5

The next development in welfare services was the outdoor relief program. Public institutional care in almshouses as outdoor relief occurred in 1700. Private institutional care in orphan homes began in the early 1700's. Public subsidy of private institutions such as churches and fraternal organizations occurred in the early 1800's. The foster home care movement began in 1850 under the influence of Charles Loring Brace. Foster home care allowed a child to be placed in another home when conditions in his own home were no longer desirable.6

The growth of children's aid societies began in the 1860's. These were agencies for the purpose of finding homes for destitute children. For the most part, the children's aid societies were privately financed, but were occasionally funded from public funds of local counties.7

A significant development in child welfare was public sponsorship of child care. States, spearheaded by Massachusetts in 1869, began to recognize their responsibilities for the welfare of children and looked toward means of care other than indenture or institutions. There occurred the development of home placement services with the State paying board for the children.

Relief for children in their own homes began in the early 1900's. As an extension of the Elizabethan practice of outdoor relief, public assistance was allocated to members of family groups such as dependent children in their own homes. In 1911, the practice as a forerunner to Aid to Families with Dependent Children was called widows pension, mother's pension, or mother's assistance. Relief to children allowed mothers to continue the care of the children in their own homes.8
A series of White House Conferences with President Theodore Roosevelt in 1909 resulted in the keynote concept that home life was the highest and finest product of civilization. Children should not be deprived of home life except for urgent and compelling reasons. Two significant outgrowths of the conferences were the reaffirmation of the concept that children should be cared for in their own homes, and the establishment of the Children's Bureau.

The Children's Bureau was created as a federal agency directed to investigate and report upon all matters pertaining to the welfare of children and child life among all classes of people. This included the conditions, problems, and welfare of children which extended its investigation into the field of child development, child labor, juvenile delinquency, child health care, child protection, and the community's provision for children in need of special care.9

Resulting from the series of White House Conferences was the Children's Charter or Pledge to Children which reaffirmed the dedication toward securing for children those essential elements needed for growth and development. Contemporary social services to children during the nineteenth century was an outgrowth of the passage of the Social Security Act of 1935. The act was characterized by the range and diversity of services, the increased use of public funds, and the emphasis upon the desirability of the child remaining in his own home and with his own family.

The Social Security Act of 1935 provided for financial aid to the states in a federal-state cooperative program or public assistance. The three groups differentiated to receive services were the aged, the blind, and dependent children. The act established, extended, and strengthened child welfare services for the protection and care of homeless, dependent, and neglected children and children in danger of becoming delinquent.10
Part-time care in a day nursery and foster day care were expressions of the stance that children should not be removed from their homes solely because of poverty. This service was introduced into the United States in 1854, and aimed to provide care in a day nursery for children whose mothers were unable to look after them during the day. It was the usual practice for such mothers, generally working mothers, to leave their child or children, usually under 3 years of age, in the day nursery and pick up the child at the end of the work day.\textsuperscript{11}

The day nursery care was either free or at low cost, was aimed at allowing the mother who was obligated to work to do so, and at the same time to allow the child to remain a part of the family unit. Services included attention to the educational, physical, and recreational needs of the child. The day nursery was provided as a casework service to the family which integrated the day nursery programs with other social service agencies in the community, such as child and family welfare services. As a casework service, other resources for care and for keeping the child in his own home were explored before day nursery care was granted.\textsuperscript{12}

The day nursery movement developed rapidly after the Civil War. In response to the large influx of immigrants and industrialization, the day nurseries were to provide an alternative to institutionalization of the poor, homeless, and unsupervised children. Day nurseries enabled mothers without financial means to gain employment. The day nursery was a place where children who needed shelter and protection by day or night may be cared for during the mother's working hours; and a place where temporary refuge was provided in emergencies. The day nurseries had long hours (up to 12), week-end care; infant and after-school programs, part-time care, care of the sick children, "dropins" options, emergency care, and family education and social services.\textsuperscript{13}
The difference between a day nursery and a nursery school was explained as one of motive or program purpose. Parents placed their children in nursery schools for the sake of their children or for the benefits to the child, not just because parents needed a place of care for the child during the day. Day nurseries were for the benefit of parents, whereas nursery schools were structured and operated for the benefit of the children and without any need for child care on the part of the parents. Enrollment in nursery school was voluntary, and enrollment in day nurseries was due to a need of the parent and child.\(^{14}\)

The peak of the day nursery movement was about 1910 to 1920. The 1920's and the depression brought changes to the day nursery concept. There were reduced quotas in immigration, shortage of funds, and governmental regulations for child care standards; and there began the movement toward trained child care professionals and social workers.

With the rise of regulations, standards, and professional day care personnel and social workers, day nurseries became a form of "treatment" or intervention into "socially pathological families." The public image and state and federal funding rationale became one of "custodial" and "undesirable" services for women and families who were not "normal." Under government regulations, the need for day nursery services was characterized as family pathology. With federal legislation and the linkage of day care with casework services, day nurseries were established under the assumption that "normal, socially healthy" families did not need child care, and that there was something dysfunctional with families who did need day care.\(^{15}\)

World War II made it patriotically acceptable for mothers of young children to work, and legislation such as the Lanham Act of 1941 (Community Facilities
Act of 1941) provided funds to meet the social service needs of war-impacted areas. The Works Progress Administration (WPA) nurseries and day care centers were primarily concerned with supplying labor for war industries, with quality of care varying among day care centers and programs.16

**Contemporary Context**

After World War II, much of the substantial funding for day care came from the social service amendments to the Social Security Act (1967 and 1972 amendments), and the Head Start funds under the Economic Opportunity Act of 1967.17 The legislature which created the national welfare system continued its orientation toward "treatment" for family pathology and support for welfare reform and employment rather than early childhood education. The trend of an increased number of women employed outside of the home continued and included mothers with children under the traditional school age of 6 years.

Contemporary day care has become an amalgam of the day nursery and the nursery school concepts. Too often, day care was viewed as a therapeutic solution both to the family's pathology and to the child's cognitive deficiencies, rather than in the total ecology of the child's life and development. The parent cooperative day care movement had strong feminist underpinnings, and did not consider that a mother's need for day care was pathological.18

Florence Ruderman countered the image of day care as an indication of family pathology. Ruderman emphasized that day care was for normal homes and that day care should not be dependent upon social casework determination of need. Mothers on all levels worked for diverse and complex reasons. In itself the decision to work should not be seen as calling for casework evaluation, and programs directed to working mothers should not be formulated in terms of
problem cases. The problem cases are a minority and should not obscure the totality of all women who desire day care.19

Day care was founded to assure the welfare and protection of young children, and had a historical linkage to custodial care. The historical strands in the contemporary early childhood programs were the center-based day care, kindergarten, and nursery schools.

The first day care and the first kindergarten programs in the United States dated back to the mid-nineteenth century. Instances of schools for young children can be traced to the early 1800's, when Robert Owens established centers for infants in New Harmony, Indiana, in 1825, New York in 1827, and Boston in 1828.

The contemporary educational program known as kindergarten was named for Froelkel, a German emigrant who established a kindergarten in Watertown, Wisconsin, in 1856. An English-speaking kindergarten was established in Boston in 1860 by Elizabeth Peabody. The concept of a program for growth and education continued to spread in America in the 1850's and 1860's. These early kindergarten programs were often a part of the public or private elementary schools.20

The U. S. Census Bureau noted that recent changes in women's labor force behavior have resulted in a shift to care outside the home, either in an unrelated person's home or in group care centers. There are limited comprehensive data available on the need for or the uses made of child care services in the United States. It is argued that increased labor force participation of women indicated an increased need for day care programs. Data from the Bureau of Labor Statistics (BLS) showed that the labor force participation rate of married mothers, with husbands present and children under age 18, increased markedly from 1950 to 1984 (18.4 percent to 58.8 percent). Data from BLS also indicated
that in March 1984, 52.1 percent of women (regardless of marital status) with children under age 6 were in the labor force; and that 47.7 percent of those with children under age 3 were in the labor force. The Bureau reported that more than 9 million children under age 6 (or nearly half the children in the U.S. in that age group) were in households where the mothers were in the labor force.\textsuperscript{21}

Since the 1950's, the number of working mothers increased and stimulated a growing, unmet need for child care services, particularly for families with low incomes. More recent reports of alleged instances of sexual and other abuse to children raised concern regarding the quality of some of the services which were available. These issues stimulated a concern for more careful personnel screening of child care workers, and more stringent monitoring by licensing authorities. The role of the federal government has been primarily one of funding, and there is a growing issue of whether the scope of federal involvement in day care should be expanded. The linkage of federally funded day care to welfare reform was done by limiting day care to families who were past, present, or potential welfare recipients. Externally, government funding agencies created by legislation and federal policy imposed income-related eligibility requirements and more subtle prescriptions about the relationship between the family and the caregivers. Success of large-scale, federally-funded day care programs are too often judged on the basis of the number of persons processed rather than objective measures of the program quality.

Legislature which created the child care deduction in 1972 resulted in a recognition by congress that more mothers in the middle income range were working and were paying for day care. The paid-in-home deduction was higher than that for families who used out-of-home care. The day care deduction
implied that care in the child's own home was preferable to care away from the home, that families who used in-home care were paying the total cost of providing the service, and perhaps the belief that the child was cared for by an extended family member or that the family had more choice in the selection of the caregiver.

**Child Care Alternatives**

For a large number of preschool children, child care has been provided by relatively complex constellations of kiths. The kiths are those people to whom one is linked by bonds of obligation, friendship, and proximity. Families also depended upon relatives, including older siblings of young children.

Alice Collins and Diane Panconst wrote about the natural helping networks, and care of children in kith. There was considerable evidence that the support of kith assumed more importance for many people as the extended family became less available. It may be that people are making use of a greater variety of helping relationships with friends and neighbors, acquaintances, and paraprofessional helpers, and are perhaps assigning these relationships more specialized functions.²²

There was an emergent trend that the informal child care arrangements by kith through barter and obligations were being converted into more formal money agreements between parent and caregiver. Society's attitude toward child rearing moved toward a specialized function, therefore, lessening the support for the role of the traditional domains of kith and kin for child care. These informal but complex alternative arrangements have changed in nature over the recent decade. Day care economists, Mary Potter Rome and Ralph Husly, stated that child care arrangements appeared to be for increasingly longer hours, occurred more and
more frequently outside of the home, and were more generally paid for in cash. The arrangements for child care were also becoming more formal.23

Children of working mothers were cared for in their own homes by their father, relatives, or a paid person while the mothers are at work. Arrangements were also made for child care in the home of a friend, neighbor, or relative. Out of economic and social necessity, modifications have occurred in the expectation that the natural mother will be the sole and full-time caregiver of a child, or the traditional notion that parents are the only individuals best suited for rearing their children.

When both parents work, or the parent in single-parent families is employed, a relative or someone outside the family must provide care for the preschool child. Alternative child care is an assortment of arrangements that families make by choice or because there are so few day care centers nationwide. Alternative child care arrangements are not a deliberate departure from a majority institution of child care. The arrangements have some resemblance to the majority institution and often have resemblances from one to the other.

American child care takes many forms to meet many differing needs: licensed and unlicensed family day care, co-operatives, playgroups, temporary baby-sitting arrangements, group homes, and others. Some of these arrangements serve children and their families well. Some do not. Because of the lack of support for the arrangements and services that promote cohesion, health, and productivity within the family, many of these arrangements do not even exist as real possibilities, much less satisfactory options for families. These alternative arrangements function haphazardly and in the dark. They are unknown to people who would like to use them or create them as possibilities; and unknown to those who make decisions about national policy affecting child care.24
Child care practices challenge some of society's traditionally held views of the family as the major child caring entity, and raise concerns about governmental interference in family life. There is a concern by conservatives that government-sponsored child care will encourage more mothers to work, or will result in government support for groups who simply do not want to take care of their own children. Good child care must build on and respond to family needs, and the objective should be to keep the family together. The family should not be forced to break up because of outmoded and divisive policies typified by the political, economic, and social welfare system. 25
Statement of the Problem

The prevailing issues related to the care and welfare of children were meshed with the concerns of educators for providing quality basic education to students. At the heart of the discussions about child care was the issue of availability and quality of child care services.

There was great variety in the types of child care provided to children, great variability in the methods of child care delivery, and diverse patterns of usage by families. While this diversity allowed for the accommodation of different needs of families and their children, there was concern for the large number of families for which child care options were limited or non-existent.

Research Atlanta 26 and the Georgia Division of Family and Children Services 27 cited statistical trends which indicated the importance of child care. Women in the labor force increased by 72 percent in Georgia from 1970 to 1980, and women currently comprised more than 44 percent of the labor force. In both Georgia and metropolitan Atlanta, approximately 54 percent of mothers with children under age 6 worked full-time.

In metropolitan Atlanta, families with children which were headed by the female parent increased by 109 percent between 1970 and 1980, while the number of husband and wife families with children increased by only 19 percent.

Since the implementation of the full-day kindergarten program in the local school system in 1980-81, the trend of enrollment revealed that 17
percent of the students received day care experiences from the public schools' federally subsidized day care program (Title XX). Forty percent were from community-based child care programs, and 43 percent reportedly entered kindergarten with no significant formal preschool experience. From an average class enrollment of slightly over 5,000 students, approximately 2,150 children entered kindergarten each year with no formal preschool experience from 1980 to 1986. For the kindergarten class of 1986-87, approximately 2,149 of 5,495 students (44 percent) reportedly entered kindergarten with no significant formal preschool experience.

Research has shown that for formal preschool intervention programs, the programs share a common effect, despite the wide diversities in intervention sites, age of child at intervention, length of intervention, and curricular models. Yet, a large number of children do not benefit from the formal preschool intervention programs for reasons of inadequacies in supply, affordability, and coordination of child care needs with available resources. Public schools must serve both the population of students who attended formal preschool programs as well as those who were from the alternative child care delivery system. Public education would benefit from more knowledge about the social and learning environments of the preschool settings. Research findings would enable the schools to recognize and support those strengths which the preschool students from various child care delivery systems bring to the school setting, and develop more meaningful plans for structuring the kindergarten learning environment.
Significance of the Study

The literature review yielded a wealth of research findings on the benefits and long-term effects of formal day care programs. Consequently, day care providers, funding sources and educators built up a set of expectations for participants of programs in the conventional child care delivery system of day care centers, preschool programs and other group-based care away from the child's home.

The literature review revealed a dearth of research findings on the benefits and long-term effects of the alternative child care delivery system in which families utilized a combination of child care arrangements in the child's home or away from the child's home. Without a broad knowledge base and a theoretical framework, the researcher questioned whether educators have built up a set of erroneous assumptions about the developmental experiences, readiness for school, and the level of achievement for children who did not attend formal day care or preschool programs.

It was in the areas of knowledge development, revision and extension that this study aimed to make a difference. The study sought to contribute added meaning to existing information about children who do not attend formal day care program, and have practical application for educational and social work practitioners in several significant ways. The study provided qualitative, descriptive characteristics of a sample of kindergarten students who did not attend formal preschool programs. The study provided quantitative, comparative analysis of the school achievement for a sample of kindergarten students who did not attend formal preschool programs with a sample of students who did attend formal preschool programs. The study was significant in that the findings may be
used to clarify achievement expectations and correct ineffective practices which the early childhood educators and the school social worker may encounter in practice.
Purpose

As families employed alternatives to formal preschool programs, much diversity was anticipated in the alternative child care arrangements, and children benefitting from these arrangements entered kindergarten at varying levels of readiness for school.

The purpose of the study was to examine the achievement differences of kindergarten students from the alternative and conventional child care delivery systems.

The study explored whether combinations of child care arrangements and socio-demographic characteristics were associated with the school achievement of students from the alternative child care delivery system similar to the common effects for formal preschool intervention programs. The study aimed to identify and measure the variables of the alternative child care arrangements which were present in child care settings to influence educational benefits for children.

The factors potentially associated with students' success in kindergarten, and the role of these factors in explaining school achievement were examined. The achievement profile of students in the no preschool group was compared to the achievement profile of students in the preschool comparison groups within the sample schools.

The study served to determine additional variables for further study and provide useful information to educators for structuring the learning environment in kindergarten.
Research Questions

The research priorities for the study were to ascertain facts and to identify differences among the variables stated in three research questions.

1. What are the differences in the descriptive characteristics of the alternative child care arrangements which families employed in the child's home and away from the child's home as compared to the conventional day care in center, home, and other group-based delivery models?

2. How does the level of achievement for students who received no formal preschool experience differ within the group for students who received alternative child care arrangements in the child's home as compared to students who received child care away from the child's home?

3. How does the level of achievement for students who received no formal preschool experience compare to the following comparison groups:
   a. Students with similar socioeconomic and demographic characteristics, who attended the same schools, and who received day care services from the local public schools' comprehensive child day care program. This comparison group is defined as the school system preschool group.
   b. Students with similar socioeconomic and demographic characteristics who attended the same schools, and who received services from child care programs other than the
local public schools' comprehensive child day care program. This comparison group is defined as the non-school system preschool group.
Hypotheses

The study examined the differences between variables and made comparisons between groups in order to test the following research contentions:

1. Differences in the descriptive characteristics of the child care arrangements between the alternative and conventional child care delivery systems occurred in the place of child care and the educational dimensions of the child care setting.

2. Differences in achievement within group for kindergarten students from the alternative child care delivery system are associated to a greater extent with the educational dimensions of the child care arrangements than with the place of child care (in-home or away-from-home).

3. Differences in the achievement among the three groups will show greater significance in favor of the preschool comparison groups on the preassessment instruments when compared to group differences on the post assessment instruments.

For hypothesis testing, the null hypotheses were stated as follows:

1. There is no difference in the descriptive characteristics of the child care arrangements between the alternative and conventional child care delivery systems.

2. There is no significant difference in the achievement of students who received child care in the child's home as compared to the achievement of students who received child care away from the child's home.
3. There is no significant difference in the achievement of students from the alternative child care who received child care in the child's home and away from the child's home, as compared to students from the school system preschool group and the non-school system preschool group.
Definitions of Terms and Variables

Research variables and significant terms used in the study were defined as follows:

**Alternative Child Care Delivery System**

A child care delivery system was a network in which services were brought to the users or made available, accessible and affordable to the users. The delivery system included the physical setting and environment in which child care occurs, the personnel or caregiver who provided the care, and the standards by which the child care services were implemented. For the purpose of the study, alternative child care delivery system was defined as those methods and arrangements employed by families for child care outside of the formal, conventional child care delivery system which included center-based, home-base, or group-based delivery models.

Alice Collins and Diane Panconst described a natural helping relationship in which child care was provided by kith (people to whom one is linked by bonds of obligation, friendship, proximity and Kin 29). Mary Potter-Rome and Ralph Husly described the informal but complex alternative child care arrangements involving the father, relatives, friends, or neighbor. 30

The alternative child care delivery system included an assortment of arrangements that families made for child care instead of the formal, organized group-based care. For the purpose of the study, the alternative child care delivery system may occur in the child's home or away from the child's home. Child care may be provided by parents or guardian, other family member, babysitter, housekeeper, friend, neighbor, in the home of
another family, at parent's workplace, drop-in, or other combinations of caregiver arrangements.

**Educational Dimensions of the Child Care Setting**

The basic requirements for day care curriculum program, learning activities, and environmental conditions were stipulated in the Federal Interacy Day Care Requirements of 1968, and were applicable to day programs administered by the Office of Economic Opportunity (OEO), Health and Human Services (formerly Health, Education and Welfare), and the Department of Labor. This study made use of the stipulations regarding the learning environment and the caregiver to measure the educational dimensions of the child care setting.

**School Achievement**

School achievement was defined in the local school system's Pupil Progression Plan as satisfactory performance on those indicators required for progression to the next grade level. The indicators included the reading and mathematics minimum skills and the *Getting Ready To Read* pre-reading program. The levels of school achievement were measured by the progression status of promotion, administrative placement and retention. Achievement was also measured on the *California Achievement Tests*, a standardized test battery.

**Kindergarten**

A kindergarten was an early childhood education program provided to eligible five-year olds the year before entering first grade. In the local public school system, the program operated for a full-day and followed the hours of the regular elementary school day. The curriculum met the standards of the basic curriculum content for kindergarten programs in Georgia, and teachers were certified under the same procedures as elementary and secondary teachers in the State of Georgia.
Socioeconomic Index for School

The source of data used for determining the number of children from low income families was the school lunch data. The total number of children which resided in the public school attendance area and the total number of children which received free or reduced-priced school lunches were used to compute a percentage of children from low income families at the school. The school nutrition program operated on funds received from the sale of meals, State supplement and federal funds provided by the national school lunch program.

Limitations

The variables in the study, child care and student achievement, were quite broad in scope. For clarity of the aspects of the variables included in the study, qualifying statements were presented to indicate the limitations of the study.

The study was limited to one group of kindergarten students, the class of 1986-87, with no comparisons with former groups of kindergarten students.

The alternative child care delivery system was an exploratory term, with conceptualization from the review of the literature and the researcher's professional experience in family and children services.

The definition of student achievement was limited to the performance indicators which were listed in the local school system's 1986-87 Pupil Progression Policy for kindergarten students, and the system's standardized achievement tests.

Data to determine the socioeconomic status for each family was not available. The reference to socioeconomic status was a school index which was defined by group data from the school lunch program.
Factors such as student mobility, sample mortality and missing data were anticipated, but did not occur to the degree which affected the representativeness of the sample.

The findings of the study may be generalized to the degree limited by the quasi-experimental design for an ex post facto analysis.

**Rationale**

This study developed out of the school system's posture of seeking data and information for decision-making regarding some of the issues facing public education. Public schools must serve both the population of students who attended formal preschool programs as well as those who were from the alternative child care delivery system. Public education would benefit from more knowledge about the social and learning environments of the preschool settings. Research findings may enable the schools to recognize and support those strengths which the preschool students from various child care delivery systems bring to the school setting, and develop more meaningful plans for structuring the kindergarten learning environment.
Educational and Social Work Importance

The recent strong interest in school assessment as a part of the accountability movement addressed such issues as what schools are doing, should do and can do to enhance student learning; and are schools doing the best job with this task as can be expected. A second area of interest was the role of the parents and the home in the educational accountability issue.

House, Rivers, and Stufflebeam stated that many of the factors which influenced learning are not controlled by teachers. This was particularly true for such factors as the background experience of the student, his emotional and physical readiness for school, the cognitive and affective skills which he brings from his particular family milieu, and numerous other personal and school-related factors.

The members of the State Board of Education wrote in a document entitled, "What We Want From Public Education in Georgia," that no child shall be enrolled in any public school of this State who is not taught the basics of reading, writing, and mathematics. The objective was that at every level of educational achievement, a pupil will be able to conclusively demonstrate that he possesses the skills necessary to advance to the next level, and that without such demonstration, he will not be advanced.

With the current trend toward educational accountability and emphasis on basic literacy skills, preschool programs contribute a structured environment in which children develop and acquire those cognitive prerequisites for relating to symbols and print. It becomes important for educators to learn more about the child care arrangements and the type of settings in which children spend their preschool years.
The local board of education adopted new requirements in response to new State requirements for Competency Based Education and the most recent Quality Basic Education Act. In order to improve attendance and educational opportunities for children, the local school system implemented at no cost to students a city-wide system of student bus transportation. In 1981, the school system adopted a pupil progression policy which stipulated uniform instructional standards, and minimum performance on the basic skills for progression through the elementary and middle school grades.

In response to the needs of children identified under the pupil progression policy and who evidenced deficiencies in the minimum skills necessary for promotion, the school system implemented the following programs: A summer school program, a summer TV instructional program, a Parental Assistance In Reinforcing Schooling (PAIRS) Project, priority assignment to remedial education programs, and the use of Computer-Assisted instruction (CAI). A committee was formed to stimulate the collection and analysis of data, planning, and the formulation of intervention strategies for the swelling number of children who were retained in the designated grade or administratively placed at the next grades. Since the implementation of the pupil progression policy, more than 6,000 students in grades 1 through 5 have been retained at least once in the assigned grade, or administratively placed at the next grade level.
In a TV commentary by Paul Raymond, he cited the plans and programs of the local school system for boosting the students' level of education. Some of the plans included efforts to bring students up to the national norm in academic achievement in five years, the commitment and partnership with the business community, the expansion of magnet schools, and a phone-accessed homework assistance program for students.

The commentary concluded that one of the strengths of the local school system was that it asked for help. For too long parents and others complained that schools kept them locked out. The local school system was opening its doors to form a partnership with parents and the community for the accomplishment of educational goals.  

Parents are pivotal links between the child's home-community setting, and the formal learning environment of the school. Parents are asked to supply to the school knowledge about the development of the child, and are asked to assist the school with problem prevention and discipline. The school also expects the parents to use the routines and activities of the home setting as learning experiences.

School social work has developed in response to some of the major problems found in public school education. School conditions and practice bare adversely upon children, and community and neighborhood conditions may increase alienation of students and their parents from the public schools.

School social work contributes by helping teachers and other school personnel understand how forces outside the school affect the child's ability to use the educational opportunity provided. The school social worker interprets to the school the child's out-of-school circumstances, and supplements the teacher's
knowledge of the child's home and family circumstances. The school is also helped in learning about the neighborhood and community factors and resources. The school social worker interprets to parents the demands and expectations of the school and explains the needs and difficulties which the child is experiencing in the school setting. The school social worker also aids in the modification of school policies and practices by supplying evidence of unfavorable conditions that influence children's school difficulties. As an advocate, the school social worker needs data which are supplied through research in education, social work and related fields.
NOTES


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CHAPTER II

REVIEW OF LITERATURE

The literature on public education generally indicated that one of the primary objectives of education is to prepare individuals to assume satisfying and productive roles in society. Because individuals are different in capabilities and aspirations, and because education is available to virtually everyone, the structure of the educational delivery system is complex.

Americans today rely on schools to teach students many of the things which traditionally have been the responsibility of the home and the church. In the earlier days, the purposes of education were rather clearly defined and those responsibilities were shared with the home and church. In recent years, as the home changed in its structure and roles, and the church generally became less influential in family life, schools were expected to take on tasks which were once those assigned to other institutions. Consequently, schools have been given many goals, and the role of the home in the shared educational process continues to need redefining.

Early childhood is the most opportune time to effect educational and social growth. Early childhood educators view the young child within the context of the family and society. Group child development programs are used as tools to foster the child's total growth and development - physical, sensory-perceptual, cognitive-intellectual, linguistic, social, emotional and academic.
Research on child development supported the claim that children can and do begin learning before the traditional school age of 6 years, and that the environment had an important effect on what children learn as well as how they learn.

The review of the relevant research literature was organized to present the similarities and differences between the proposed study and findings of similar studies; and to indicate how the proposed investigation will mesh with the existing body of knowledge and contribute to the knowledge base of the social work and education professions.

**Child Care Delivery Systems**

The research literature on formal child care programs was extensive. Within the context of the broad discussion about child care, there was a limited number of research studies which focused on the alternative child care delivery system outside of the formal, organized child care in center-based, home-based, or group-based delivery models.

The review of the research included the "classic" day care studies, several studies to show historicism of the child care problem, and the most recent studies in social work, education and the related social sciences.

Studies were selected for review which offered a conceptual definition of the independent and dependent variables selected for the proposed study. A cross section of studies were selected to provide a diverse perspective of the problem of child care, particularly alternative child care arrangements in the State of Georgia and
nationally. Thus, studies were selected to place the problem in a multi-dimensional perspective — social, economic, ethnic, policy, social, work and educational practices.

Screening programs and diagnostic assessments for preschool and kindergarten programs are increasingly popular among school systems. These programs are justified by the emphasis placed on the importance of early childhood education and the idea that early identification of learning problems may allow for appropriate intervention so that identified problems may be prevented or alleviated.

Wilson and Reichmuth cautioned that screening measures are often used to make decisions about children without any systematic evaluation of their effectiveness. There is also a danger that students identified as "at-risk" may be subjected to inappropriate expectations by teachers and parents as a result of labeling. The authors further suggested that there is considerable variation, even confusion, with respect to methodology, assessment of findings, decision contexts, and intervention strategies. There is difficulty in defining the target population. The authors raised several questions: what precisely are the "risks" that face the preschool child? Is it the risk of becoming below average in one or more school subjects; the risk of being seen as inattentive and/or disruptive in the classroom, the risk of being described as learning disabled, mentally disturbed, and thus requiring expensive intervention at a later date? The authors cautioned that if it is not clear which state preschool screenings are attempting to predict, it is also not clear what is meant when a preschool child is labeled "at risk." In the study,
Wilson and Reichmuth tested a prediction-performance matrix model for use in evaluating preschool screening programs. In the context of early identification, the authors suggested that educators and researchers ask how the screening results and the selection decisions contributed to the later educational success of the children.

Peters examined the literature for the basic sociological, psychological, and philosophical issues of childhood socialization and to review the underlying assumptions which supported current research on parent-child relationships within the Black family. The author found that research in general was characterized by poor methodology, ignored intact Black families, concentrated on the Black poor, father-absent families, centered on the mother-child dyad, and had an ethnocentric approach.

In a report on "Who Will Rear Our Children?" Hawkes reported that various kinds of child socialization facilities have risen over the past decade in response to the demand for multiple options by women, the needs of ethnic and low-income groups, and from other social circumstances. Tasks that were formerly assumed by the extended family are gradually being supplanted by bureaucracies due to changes in the extended family.

The child care alternatives and options for parents reported by included a variety of child care arrangements necessitated by increasing parental dislocations resulting from the job market.

In a study of child care by kith and neighborhood caregivers, Emlen and others focused on the family day care arrangements made by white, urban working mothers for children under 6 years of age. The authors
found that, in a representative cross section of occupations, most mothers who had their children in private day care homes preferred the arrangement over day care centers.

O'Connell and others demographers in the Population Division, Bureau of the Census,\(^6\) presented an analysis of statistics for child care arrangements of working mothers. The analysis focused on the current arrangements used by 18 to 44 year old working mothers of preschool-age children, methods of payment for child care services, and ways the availability of child care arrangements influenced the mother's labor-force behavior. The study presented the characteristics of husbands who cared for their young children while their wives worked. The estimate of the number of women who used multiple child care arrangements was quite large. Cost and availability of child care services had effects on women's attitudes toward employment, absenteeism, and other job-related problems.

Emlen\(^7\) reported the results of a survey conducted to examine the interdependence of family and work, with special emphasis given to the child care arrangements that made work possible for parents of children. From a sample of 953 employees (males and females), the author elicited responses to a four-page questionnaire regarding the job and family characteristics, types of and satisfaction with child care arrangements, future child care arrangements, future child care plans, and other information such as the amount of time and distance traveled for child care.
Three major findings were highlighted: (1) absenteeism from work was related to parental responsibilities and the type of child care arrangement employed, (2) family composition determined the type of child care arrangements used by a family, and (3) employees experienced difficulty when trying to enter the day care market.

The Family Day Care Networking Project established family day care homes in Mississippi by making use of senior citizens as day care providers. The goals of the project were to provide alternative day care arrangements for low-income parents, to offer senior citizens extra money, and to strengthen the self-image of the senior citizens. The alternative child care arrangement had the advantages of (1) fewer transportation difficulties for low-income mothers, (2) siblings remaining together, (3) more attention for each child, (4) lower costs, and (5) no costly regulations applicable to the care of more than five children. The project established 60 day care homes which served 290 children. Formal evaluation of the program in terms of outcomes for children was not conducted. The informal assessment of program value focused on the service providers, and included interviews to solicit information about the program's effect on the health, self-concept, and economic status of the day care providers.

Prescott and David explored the effects of physical environments in child care systems. The author examined environmental variables thought to be important in determining the presence or absence of experiences considered important to the development of children. The variables considered important in a child care environment were softness (the
responsiveness of the environment especially on a sensual-tactile level), privacy, density, size of facility, quality of space, the degree of complexity, and variety and amount to do per child.

The research project of Goodman, et al. compared and evaluated three levels of structure of educational programs in family day care. The educational programs which were considered high, medium and low structures were evaluated in an experimental design as to the impact on cognitive and social development in 60 children aged 2½ to 4 years. The high-structured program followed the Bereiter-Engelmann approach, the medium-structured program was an adaptation of Levenstein's Verbal Interaction Program and the low-structured situation involved friendly visitation with a child by an adult with no consistent philosophy or pedagogical program. Fifty-two children were assigned to the three intervention groups which differed on two main dimensions: the three levels of structure and two delivery systems (paraprofessionals working alone with the children, and paraprofessionals working with children in conjunction with the day care mother). Eight children were assigned to a family day care control group. Results of pre and posttesting with three cognitive measures indicated that children in each of the three intervention groups showed improvements above those of the control group. However, there were no differences between intervention groups. No distinct pattern of effects was found on the socio-behavior ratings made by teachers for any of the experimental groups.

Snow synthesized the findings of 20 comparative research studies on the advantages and disadvantages of family day care and center care. The
results were discussed in terms of (1) the effects of family day care and center care on the intellectual, emotional, social, and physical development of children and their parents; (2) the environmental differences between the two types of care, and (3) the implications for parents. The author indicated that the research reports were contradictory and inconclusive; and only two rather weak trends were discerned from the synthesis of the 20 studies. For measures of cognitive and motor performance, the results tended to favor center day care. For measures of emotional development, the results tended to favor family day care. For measures of social behavior, physical growth and health, there was no consistent pattern of differences favoring either family or center care. The environmental differences between the two settings were consistent with the two trends in studies which reported differential effects on the participants. On the basis of study results, no strong argument was made for the superiority of either type of care. The paper concluded that center care and family day care were both viable options for parents who needed out-of-home care for their children. The most important consideration in comparing child care arrangements was the quality of care.

A Health, Education, and Welfare report detailed child development issues in the United States. The report reviewed congressional interest and federal involvement in early childhood and family development programs. The report recounted some of the major findings on national policy for children and families. The report stressed the importance of environment on child development, and emphasized the importance of the
family. The report stated that some of the serious problems in the United States which adversely affected the development of children included the divorce rate, single-parent families, lack of prenatal care, poor environments for development and learning, poor nutrition, lack of immunization, and child abuse.

Hertz\textsuperscript{13} prepared a synthesis of research findings on the impact of federal early childhood programs on children. The major programs examined were Head Start, Parent-Child Centers, Home Start, Follow Through, the Handicapped Children's Early Childhood Education Program, Sesame Street, and The Electric Company. The report provided findings on the short and long-term effects on children's cognitive and affective development, short and long-term effects on non-cognitive outcome measures (socioemotional development, family and community change); the effectiveness of curricular and treatment structures, program implementation, parent involvement, the effects of programs on children with different characteristics, and the timing of intervention.

Hill\textsuperscript{14} suggested that studies of the private demands for day care indicated a weak case for a public role in the day care market. The demand for different modes of child care by households of different socioeconomic characteristics revealed that family income had little effect on modal choice, and most working mothers chose at home care for economical reasons.

In examining the dual-earner family's impact on the child and the family system, Bennett and Reardon\textsuperscript{15} reported that there was little research evidence to suggest that preschoolers in a dual-earner family
would necessarily suffer harm. The key issue centered not on whether both parents worked but on the quality of substitute care and how well the family coped with the stresses of a dual-earner lifestyle. The mediating factors that were crucial in determining whether the dual-earner lifestyle resulted in harm or benefits included the child's age, sex, relationship to parents, family socioeconomic status, nature of mother's work, family's coping resources, and the role of the father.

United Press International reported statistics from a study funded by the Council on Economic Priorities regarding day care centers sponsored by U.S. firms. U.S. companies coming to grips with a drastically changing work force, increased the number of child care programs paid for or sponsored by companies from 110 in 1978 to 2,500 in 1985. The child care study showed that American businesses were tackling the important issues of child care in creative and useful ways. However, the scope of the problem was so large that much more needed to be done by the 44,000 U.S. companies, that had more than 100 employees, to meet the needs of the millions of children younger than 18 whose mother worked outside the home.

The United Press International study stated that as of March 1985, 49 percent of women with infants younger than one year were working, up from 31 percent in 1975 and 24 percent in 1970. Of the 6.3 million single mothers, 61 percent of those with a child ages 3 to 5 held jobs, and 25 million children had mothers working on a regular basis. The report stated that employees were responding to the need for child care mostly by setting up new employee benefits in addition to the traditional benefits
package which included life, medical, and disability insurances. The new employees' benefits included maternity and paternity leave, subsidies for adoption expenses, flexible benefits for dependent care, flextime or job-sharing arrangements. The flexible benefits accounts offered by about 800 companies (up from 500 in 1984) included dependent child care. Employees were allocated two percent to four percent of their salaries for services such as child care, in addition to their regular basic benefits.

A moderately increasing number of companies were establishing child care centers at the workplace. In 1984 there were approximately 120 companies with child care centers, and in 1985, the number increased to 150. The United Press International report concluded that while the flexible employees' benefits approach offered by companies helped to make child care more affordable to workers in the labor market, it did not necessarily address the larger issue of ensuring an adequate supply of accessible, quality child care.

Guidubaldi conducted a study which probed the effects of divorce on children. His findings indicated that 12 million children under 18 years of age resided in homes marked by divorce. Researchers found that descendents of divorce had lower academic scores, problem friendships and emotional turmoil years, perhaps decades, beyond the initial parental separation.

Guidubaldi found, in a comparison of children of divorced and intact families, that first and third grade children of divorced parents, after 4 years of separation, had lower grades, poor teacher assessments, spent more time in the school counselor's office and were more likely to repeat
a grade. About 90 percent of children of divorced parents were brought up by their mothers. Guidubaldi suggested that the negative effects may well be a result of the loss of income the family suffered after the male parent left the home, rather than the divorce itself or how well the parents got along. Statistics painted a grim picture for the newly divorced woman. The ex-husband's income went up 42 percent in the year following a divorce. Presumably, the ex-husband was not supporting his ex-wife and children in the style to which they were previously accustomed. By comparison, the ex-wife's income was reduced by 73 percent. The median annual income of divorced heads of household was $10,000 to $15,000, compared to $25,000 to $30,000 for intact families. When Guidubaldi controlled for income by comparing groups of intact and divorced homes with equal salaries, the study found that the differences between the two groups - intact and divorced - were virtually nonexistent except in academics. Guidubaldi contributed some of the differences in academics to the burdens and added responsibilities the child faced at home. He concluded that when children had less to worry about and were financially secure, they had more time and attention to devote to schoolwork.

The study conducted by Goldring and Presbrey showed that for formal preschool intervention programs, the programs shared a common effect, despite the diversities in intervention sites, age at intervention, length of intervention, and curricula models.

A generalization that may be drawn from the extensive research is that preschool programs frequently do have positive effects on the cognitive
functioning of children. However, there was no single program, curriculum, or approach that appeared to provide outstanding advantages over the other. Many other factors such as teacher attitude and commitment, and parental involvement were influential variables. Significant findings of early intervention projects identified the home and community as influences linked with success of children in school.

The review of the literature presented a perspective on the development and status of child care, issues related to child welfare and educational policies, practices and services; the day care need, and a synthesis of research on the effects of child day care on later success in school.
Achievement

Academic achievement has been researched from various aspects: class size, classroom environment, teacher attitude and expectation, curriculum method, instructional approach, length of the school day, time on academic task, components of effective schools, values, grouping, preschool experience, parental involvement and many other single and combination of independent variables. On such a complex issue, research findings are often inconclusive particularly for achievement at the kindergarten level.

The kindergarten program has undergone many changes since 1855 when Karl Schuug established the first kindergarten in the United States. Many private kindergarten programs were developed by churches, social agencies and private enterprise, and kindergarten programs have been incorporated in the public school system since the 1870's. Many of the changes which occurred in kindergarten centered around the nature of the kindergarten program in terms of the curriculum and performance expectations of children, and the length of the school day.

The Educational Research Services (1986) reported that approximately 41 percent of the children entering kindergarten had a prior school or day care experience, and about 35 percent entered a full-day kindergarten. The survey of school principals and teachers about kindergarten found that the program placed more emphasis on structure and academic preparation for first grade, and that more than one-half of the public kindergarten programs considered academic preparation as the primary focus of their curriculum. Previously, kindergarten programs
emphasized child development and building social skills. The increased focus on academics also brought testing and screening, rigid entry requirements and a move toward promotional requirements to enter first grade.

Bloom (1964) commented on the implications for a more powerful and effective school environment in the primary grades for the development of learning patterns and general achievement. In the analysis of data related to the stability of achievement, Bloom estimated that about 17 percent of intellectual growth takes place between ages 4 and 6. Nursery school and kindergarten could have far-reaching consequences on the child's general learning pattern.

One of the questions which undergirded the implementation of early intervention programs asked whether children who did poorly in school could improve their performance significantly with the help of some form of intervention? Many early intervention programs for children from low-income families were built on the premise that appropriate services from outside the family could compensate for the disadvantages which were believed to be responsible for the generally poor performance of the children in school. Therefore, early intervention programs usually included an educational program among its service components. Parental involvement remained a critical key to later success of children, regardless of the type of preschool experience provided.

Wadsworth (1985) assessed the feasibility of predicting children's verbal attainment scores by examining mother's education and parenting styles, and children's preschool experience.
Although preschool experience was an independent and significant predictor of verbal attainment scores, its power was small when compared to the mother's education. Attendance in preschool had no significance in predicting the scores of children whose mothers were relatively understimulating in parenting.

Screenings of preschool children for school entry generally are done to determine or predict which children are likely to have problems in regular classrooms and to identify those who may be eligible for particular programs that provide a modified learning environment. The practice of screening children upon their enrollment in kindergarten occurred in the local system as well as other public schools.

Hills (1987) wrote in a discussion of screening for school entry, that the terms screening and assessment were not interchangeable. Screening was a preliminary process of identifying from all the children those who may be at risk of future difficulty in school because of the inability to meet academic expectations or unusual problems in learning. The identified children must be assessed more carefully to confirm or disconfirm their need for special treatment. Screening tools have lower predictive power and are not sufficient for making decisions about a child's placement or kind of instruction. Further assessment was necessary for decisions about placement and instruction.

Meisels (1985) addressed the issue of use and abuses of developmental screening and school readiness testing. He defined the tests as different and designed to accomplish different objectives.
The developmental screening tests provided a brief assessment of a child's developmental abilities that were highly associated with future school success. Readiness tests were concerned with the curriculum-related skills that are prerequisites for a specific instructional program. Meisels further stated that the developmental screening tests were norm-referenced tests used to identify children who may need early intervention, special education services, or children who might benefit from a modified or individualized classroom program. The readiness tests were mostly criterion-referenced tests that were designed to facilitate curriculum planning and to identify a child's relative preparedness to benefit from a specific academic program. There is increasing responsibility for public education to identify children who may be at risk for learning problems and place the children in appropriate educational environments. Meisels charged that professionals have misused and abused both screening and readiness tests, primarily from using tests that had no established reliability and validity.

Studies on the effects of the length of the school day on achievement compared the performance of children who attended half-day and full-day kindergarten programs. A transition from full-day to half-day and a return to full-day kindergarten programs have occurred as a part of the recent educational reform movement. The effects of extended instructional time was measured in many studies through experimental-control group designs and quasi-experimental non-equivalent control group design. The measures of achievement were inventories for reading readiness and standardized achievement test batteries.
The change from half-day to full-day kindergarten programs was addressed in research findings such as Humphrey (1983)\textsuperscript{25} which stressed the advantages of early intervention on reading readiness; Schmidt (1972)\textsuperscript{26} which emphasized the need for full-day child supervision for employed parents; and Cleminshaw and Guidubaldi (1979)\textsuperscript{27} which reported on the effects of full-day kindergarten on readiness skills, social competence, and measures of parental attitude. Cleminshaw and Guidubaldi tested 48 all-day alternate day kindergarten children and 48 half-day everyday kindergarten children after the completion of one-half year in kindergarten. Children in the full-day program scored significantly higher than the half-day program children on the five subtests and total test of the Metropolitan Readiness Test.

Smith (1980)\textsuperscript{28} compared the all-day alternate day kindergarten with the half-day everyday kindergarten in relation to the self-concept, academic, and social development of the children.

The results were that although children in the full-day alternate day program scored significantly higher than children in the half-day everyday program on some of the academic and social measures; both kindergarten program schedules were conducive to effective learning and social growth at first grade. At fourth grade there was no significant difference in the academic, social and self-concept measures between the two kindergarten program schedules.

The main purpose of the study by Oliver (1980)\textsuperscript{29} was to determine the effects of extended instructional time on the kindergarten child's readiness for reading in an urban city outside of Boston. A control group
of sixty-one pupils who attended regular half-day kindergarten was compared to an experimental group of ninety-eight pupils who attended a full-day program. Both groups used the same structured prereading workbook program. The results were that extended instructional time was a significant factor in determining the level of reading readiness, but there was no significant difference in the mean raw score gains between pupils in the half-day and the full-day program. The reading readiness level was measured by a readiness inventory and a standardized test battery.

No significant difference between half-day and all-day kindergarten groups were found by Gullo and Clements (1984) in a study of the effects of kindergarten schedule on achievement, classroom behavior and attendance.

No differences were found in the entry developmental level for any of the achievement variables as measured by the Metropolitan Readiness Test or on attendance data. Gullo and Clements conducted the study in a midwest, middle-class suburban school district with 99 children in the half-day kindergarten program and 98 children in the full-day kindergarten program.

A study by the Chicago Board of Education (1984) concluded that class size was more important than the length of the school day in the achievement of disadvantaged kindergarten children. The study measured achievement in half-and full-day programs and in large and small classes. The spring 1984 scores on the Iowa Tests of Basic Skills (ITBS) were examined for 9,000 kindergarten children in 100 "poverty area" schools.
The study found that students who participated in preschool programs before entering kindergarten performed better than students who did not attend preschool programs.

Ginsburg's (1986) study on values and educational success among disadvantaged students found that disadvantaged youth with strong traditional values of hard work and education achieved greater academic success than other disadvantaged students. A significantly higher proportion of the disadvantaged high achievers also received encouragement from parents and friends who valued education.

Based on a sample of nearly 12,000 high school sophomores, the study recommended that schools and parents should work together more closely to help low-income and minority students develop the values needed for success in school, and that remedial programs alone do not foster high aspirations to achieve educational excellence.

Weiss (1986) examined six eclectic basal readers to determine what basal readiness programs were teaching kindergarten and early first grade children. Weiss concluded that basal reader series overemphasized letter recognition and sound/symbol association and included fewer or no aspects of fine motor skills; colors, shapes, and numbers; handwriting and perceptual training. Achievement testing measured a range of academic skills which were not in the basal readers.

Linn and Meyer (1985) found in a study of kindergarten instruction and early reading achievement, that there were great differences between-classrooms and within-classrooms in the amount of classroom time devoted to reading instruction, the number of reading-related activities, and
teacher instructional feedback. These differences were strongly related to the student's decoding ability.

The various modifications and revisions in grouping practices in schools over the past years developed from the issue of how can children who differ in developmental characteristics, ability and learning styles be taught in the same classroom.

Many instructional programs and methods of grouping for classroom instruction were developed. Grouping is a method of assigning students to a classroom and the practices used within the classroom to place children together for instruction. In the literature the term "grouping" includes a wide variety of organizational plans, selection criteria, instructional methodologies, and educational philosophies.

Extensive research has been done on the effects of grouping practices on academic achievement, social, and emotional development. The studies showed various and ambiguous results and raised concerns about ethnic and socio-economic factors, the social stigma and impact on self-esteem for students in the low ability groups (Rosenbaum, 1980). Studies also showed that the slight gains made by the high ability group were often offset by substantial losses in achievement gains by the average and low ability groups (National Education Association, 1980). A large issue in this discussion was the appropriateness of the various screening, assessment, intelligence and achievement tests which were used to assign students to groups.

Rosenbaum (1980) described the two most common types of homogeneous groupings. Ability groups were those that were formed by teacher's
judgement of achievement and ability, results from intelligence or achievement tests, or a combination of teacher's judgment and test results.

Curriculum groups were those created for specific curriculum models in the elementary schools or the academic, general or vocational curricula of the secondary schools. Rosenbaum stated that there was highly-charged ambivalence about grouping practices. Much of the ambivalence was reported in research findings.

An examination of the facts and issues about ability grouping was prepared by Riccio (1985). In a synthesis of research findings, the author addressed the issues of group assignments, effects on achievement and educational opportunities, the effects on behavior and self-concept, race and ethnicity issues, and alternatives to ability grouping.

The benefit most frequently attributed to grouping was that instruction could be geared appropriately to student's needs and abilities (Drowatsky, 1981). Ability groupings may benefit the achievement level of gifted and talented students, but had only a small effect on the achievement level of average and below average students (Kulik and Kulik, 1982). Students in the low-ability groups may actually be discouraged from excelling because the assigned teacher tended to be less creative and stressed basic skills at the expense of independent and creative learning (Heathers, 1979).

Additionally, minority students and those from low socioeconomic groups were disproportionately represented in low-ability groups (Drowatzky, 1984).
Oakes (1983) examined some of the constitutional bases on which the practice of ability grouping may be challenged as barriers to equal educational opportunity. Oakes cited findings from educational research on ability grouping. Commentaries from law review journals, and the texts of cases themselves were cited as rationale for legal challenge to the practice of ability grouping. The impact of ability grouping on the education of children stemmed from several widely-held assumptions: that students differed greatly in their academic potential and aptitude for schooling which warranted separate and different treatment; that temporary compensatory education program could remediate the learning deficiencies of students from an educationally impoverished background; and that classification of students according to their learning potential could be accurately and easily accomplished. Oakes stated that these practices of classification of children's educational opportunities were subject to judicial review.

The review of the literature showed that, although many variables were associated with and influenced achievement, general academic achievement was defined by its measure. The issue regarding achievement measure was whether the screening, assessment, readiness and achievement instruments were valid and reliable for measuring the whole functioning of the individual and the broader scope of learning.

Because of the great variability of special abilities within each individual, educational decisions such as ability grouping has questionable merit as a factor which yielded improved achievement. Furthermore, children discerned the reasons for their segregation into groups for instruction.
The review of the literature on achievement showed that an effective school incorporated components for school climate, school organization, policies, and classroom practices which promoted academic achievement, as well as non-academic growth and development. Educational research must continue its rigorous scientific methods in collaboration with teachers, schools and local districts to conduct research and communicate the results to early childhood education practitioners.

**Labor Force Participation and Options for Working Parent(s)**

One of the most startling projections of national statistics suggested that about 86 percent of parents with children will be in the work force by 1990. Women who work outside of the home are more likely to be poor, and are the single-parent heads of households for approximately 50 percent of all families below the poverty level. The growing significance of the impact of wives in the labor force was discussed by Joyce Beckett (1974)44 in the examination of more than 600 predominantly Black women.

Studies by Beckett (1974)45 and Gaskell (1984)46 established that the participation of women and wives in the labor force has profound effects on the women themselves, the spouse, children the family, as well as the workplace. The policy implications addressed how to provide better services for families when both parents or the single parent worked, not on the argument of whether women should or should be in the labor market in such increasing numbers. The assumption from the authors was that the improved lives of women improved the quality of their relationship with spouse, children and at the workplace.
Large scale statistical studies were conducted to document the need for child care in a particular geographical area, and offered suggestions for child care options. The statistical study for Georgia concluded that the pattern of utilization of child care services by families were due more to the lack of accessible, affordable service. That is, families needed assistance in making a match between an available service and their needs, preference and ability to pay.

The Arkansas Advocates for Children and Families conducted a study of demographics for a geographical area in which 16 labor centers were located. As advocates for various child care options which employers may offer to employees, the study collected data on the number of children under age 6 who required some form of day care because the mothers worked. The study aimed to increase the employers' awareness of the rising number of mothers in the work force and present the advantages of employer-sponsored child care assistance on the worker's attendance and productivity.

A comprehensive policy study by the Illinois State Board of Education summarized statistics on the preschool experience and the child care arrangements of Illinois children. Based on the number of parent(s) in the labor force with children in selected age groups, the study determined the number of children who received custodial day care, inadequate day care services and the variety of child care arrangements utilized for school-aged children.

Recent child care options have been provided through an extension of the federal involvement in child care. The tax credit for child care
expenses provided some relief for families with income above the median level, but there are a large number of families who do not benefit from this federal child care assistance. Elkind (1986) discussed other options for tax incentives for child care. A variety of child care options are needed to reach the families that do not qualify for existing federally-subsidized child care programs. Some of these options which were introduced in legislature included tax incentives for employers that developed child-care centers in the workplace, child care tax credits for low-income families, funds to provide parenting training and low-cost child care. Child care options for parent(s) in the labor force should aim to strengthen and support the family as a primary unit of society.
Theoretical Framework

From the review of the general and research literature, the theoretical rationale for the problem was clarified. Three theoretical concepts formed the framework for the study: 1) early childhood development programs are anticipated to have immediate and long-term educational, social, economic, and political impact for the participants; 2) the role of the caregiver (including the Black family, and women in a variety of circumstances) along with the caregiver environment in a diversity of alternative child care arrangements, is one of the most crucial factors in determining the immediate and long-term effects of child care services and programs; and 3) the concept of child development and school readiness from the theories of Gesell, Piaget, Bloom, Tanner and other recognized authorities must consider the unique characteristics of the population of children when translated into educational practices in the public kindergarten and early childhood education programs.

There is the increasingly growing notion that more and more young children are attending traditional preschool programs and are in child care arrangements with persons other than the parents or guardians. Licensing of children's services aim to provide protection for children in the care of someone other than the ordinary care from their families. Licensed services include family day care homes, day care centers, child placing agencies, family foster homes, and child care institutions. Licensing mandates a basic level of quality. State licensing, however, means that there may be variations in standards from state to state.
Licensing includes multiple forms of protection in response to society's interest in the protection of the welfare and rights of children. Licensing, like other forms of regulation, may not extend to persons who wish to carry out a certain enterprise such as babysitting and the alternative child care arrangements investigated in this study.

The concepts and practices of early childhood development programs carry a host of high expectations. There is the expectation that the school program will influence the home and family, that the pedagogical techniques will influence change in the primary grade instructional program, and promote upward social mobility of children from low socioeconomic circumstances. Longitudinal studies have found that Head-Start-type programs have wide-ranging and lasting positive educational and social effects, greater success in the job market and economic benefits to taxpayers.

Research on child development supports the notion that children can and do begin learning before the traditional school age of 6 years, and that the environment has an important effect on what children learn as well as how they learn. Children performed differently on some measures depending upon the teaching approach and curriculum model used. Programs had different effects on children with respect to the immediate impact as well as long-term. Generally, the more structured approach produced greater immediate cognitive gains. Various combinations of approaches produced differential effects on both cognitive and non-cognitive areas.
Although research showed that there was a relationship between teacher approaches and child outcomes, national studies and the bulk of research showed that one of the most crucial variables in a child's day care experience was the caregiver.

The family is the child's earliest educational setting, the child's first teacher and is considered to have the most lasting influence on children's attitudes, values, learning, concepts, emotions and ideas. The traditional concept of the family has been an ingrained part of the research approach, policy formulation, and service provision. Information generally disseminated regarding the Black family has often been a partial picture or a distorted view from the researcher's value perspective. There are changing concepts regarding the definition of the Black family and family life in general, in comparison to the traditional family concept. More attention is focused on different family compositions and role definitions. Both researchers and educators must recognize and accommodate what is seen or found in the context of the study of family life.

Conceptual framework from the massive collection of research findings in child development and early childhood education has relevance for educators when there is a linkage between theory, empirical findings, and educational practices appropriate for the group of children served.

The school social worker can serve to assist the education system in structuring appropriate learning environments for children. As Kifer indicated, both the home and school are interested in creating the best possible environments for learning. Therefore, a focus on the
home and preschool environments is useful not only because it indicates how the settings can cooperate with the school to increase school experiences, but also because knowledge about the most effective learning environment may be gathered in the preschool, home and school settings. Since these settings are environments for learning, the contribution of each should be considered.

Because of the characteristics of different populations, caution must be used in extrapolating the findings from other similar groups of children to inner-city Black children in the local public school systems.

In formulating social and educational programs, other data are useful, but the needs of the particular population must be carefully observed. When isolating deficiencies or identifying needs, wholesale generalizations from inappropriate measures employed in some research studies should be interpreted with caution. Precise and explicit definitions must be made for terms and research variables such as disadvantaged, economically deprived, or learning deficits. Otherwise, program planning and policy decisions may be flawed and inadequate solutions are likely to result.

The summary of research findings supported several theoretical strands. Research findings on the pattern and usage of the gamut of formal and informal in-home and out-of-home child care arrangements for preschool children have not been able to demonstrate the superiority of a single method or mode of care. Findings also showed that neither method of child care by itself solved the developmental and educational needs of preschool children. Research findings on different modes of child care suggested that a high level of structured child development activities tended to yield greater results in the cognitive areas. For measures of non-cognitive areas such as social and physical
development, self-help skills, and self-concept, effects were not so readily
distinguishable by child care mode of delivery. 60

Because research findings supported the delineation of several crucial factors
in child care delivery (the environment and the caregiver), the proposed study
explored the alternative child care arrangements in which the two crucial
variables, environment and caregiver, were examined in relationship to factors
associated with school achievement,
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CHAPTER III

METHODOLOGY

The sample survey research method was used to answer the research questions and test the hypotheses. The sample survey procedures allowed for the description and assessment of significant characteristics of the sample which were inferred to the population. The sample survey method allowed for the collection of information about perceptions and behaviors as well as served a fact-finding purpose.

The problem under study was an ex post-facto event in that preschool experience of the kindergarten students had already occurred. Observations began with the output variable, kindergarten achievement, with the intent to retrospectively identify and study a possible independent variable, child care delivery systems.

The research design was quasi-experimental in that the researcher did not have pre-experimental control over the random assignment of subjects to treatment, control or comparison groups; or manipulation of the application of treatment.

The researcher identified three groups of public school kindergarten students that were different based on the preschool experience prior to entering kindergarten. The population consisted of 1986-87 kindergarten students whose enrollment record indicated that they had no formal preschool experience prior to entering school. The two comparison groups consisted of 1986-87 kindergarten students who attended the school system's day care program, and 1986-87 kindergarten students who attended non-school system (community-based) day
care programs. The characteristics and behaviors of the sample groups on variables associated with school achievement were compared to determine group differences, similarities and correlational relationships.

**Population**

The population was defined as kindergarten students who entered the local school system kindergarten program in 1986-87. Students who entered kindergarten in 1985-86 and who were repeating kindergarten during 1986-87 were excluded for the purpose of the study. The local school system operated a full-day kindergarten program at 82 elementary schools. The ethnic composition of the 66,169 system students consisted of 7 percent white, 92 percent black, and one percent other ethnic groups. The subgroup of kindergarten students whose enrollment record indicated that they received no formal preschool experience and were from the alternative child care delivery system was identified. Twenty-four percent of the total census of approximately 2,419 students comprised the no preschool group.

The comparison groups of kindergarten students consisted of students in the same schools as for the no preschool group. The school system day care comparison group consisted of 19 percent of the total census of approximately 813 students. The non-school system (community-based) day care comparison group consisted of 33 percent of the total census of approximately 2,263 students.
Sampling

A stratified random sampling technique was used to develop a sample for the study. The percentage of students receiving free or reduced-priced lunches was used as a socioeconomic index (SES) to stratify the 82 elementary schools for random selection. The 82 elementary schools were rank ordered by socioeconomic characteristics obtained from school lunch data compiled for 1986-87. The percentage of students from low-income families was used to place schools into three stratas: a high percentage of students from low-income families (80 to 100 percent), medium percentage of students from low-income families (40 to 79 percent), and a low percentage of students from low income families (less than 40 percent). The stratas for the schools' socioeconomic index consisted of 50 schools (60 percent) in the low socioeconomic strata, 27 schools (33 percent) in the middle socioeconomic strata, and 6 schools (17 percent) in the high socioeconomic strata.

A table of random numbers was used to select a representative proportion of schools from each strata. Of the 23 schools selected, 11 schools were from the low socioeconomic strata, 8 schools were from the middle socioeconomic strata and 4 schools were from the high socioeconomic strata.

The 1986-87 kindergarten students with no formal preschool experience at the 23 schools were included in the no preschool group. The sample size was 573 kindergarten students, of which 57 percent were enrolled in schools with a low socioeconomic index, 37 percent from the middle socioeconomic schools and 6 percent were from schools with a high socioeconomic index. The sample size for the school system preschool group was 149 and the sample size for the non-school system preschool group was 734. Forty percent were in low SES schools, 40 percent were in middle SES schools and 20 percent attended high SES schools.
Decisions regarding the size of the sample were made in view of cost, time, data collection technique, and the fact that the researcher conducted the study without personnel assistance. The first consideration was for a sample size which was large enough to allow flexibility in data analysis. Another consideration was that each strata was represented in the sample proportionally to the occurrence in the population. The independent variable under study, no-formal preschool experience, occurred at a yearly rate of approximately 44 percent of the student population. Approximately 15 percent attended the school system preschool programs and 41 percent attended non-school system preschool programs. Proportionally, the total study sample of 1,456 consisted of 573 students (39 percent) in the no-preschool group; 149 (10 percent) in the school system preschool group; and 734 (50 percent) in the non-school system preschool group.
Data Collection

The primary sources of data were pre-compiled records and student data files; and a mail questionnaire to parents. The records and student data files were used to identify students who met the criteria for inclusion in the study, and provided sociodemographic data. A content analysis guide and data form were used for uniformity in data collection from student records and data files.

A cover letter with agency endorsement was sent to the participating schools and parents of children in the no-preschool sample. The cover letter provided an explanation of the study, the purpose and methodology, and requested voluntary participation.

The Day Care Questionnaire was a mailed, self-administered instrument which asked parents of the students in the no-preschool group to describe the child care arrangement made for their child, during the day on weekdays, the year before child was enrolled in kindergarten.

The questionnaire solicited information about five aspects of the alternative child care arrangement: (1) whether child care was provided in child's home or away from child's home; (2) the characteristics of the caregiver(s) in terms of the relationship to the child and his family, number of caregivers, and the nature of the informal or formal agreement between family and caregiver(s); (3) the educational dimensions of the child care setting in terms of the presence or absence of furnishings, equipment, materials and supplies determined by the Child Development Section of the Georgia Department of Human Resources as essentials to the quality of the learning environment for preschoolers; (4) the need for child care and the reason for the choice of child care arrangements; and (5) the general satisfaction with the child care arrangements, and whether another child care option would have been preferred.
The day care questionnaire was developed and piloted through several procedures: (1) questionnaire items had several draftings to obtain clarity of meaning, simple language and format, (2) questionnaire drafts were submitted to professional colleagues in the field of day care and education for critique, (3) the preliminary draft of the questionnaire was pretested with a sample of parents who were members of the population under study and had knowledge of the subject matter, and (4) the final questionnaire was prepared for data collection. A questionnaire with a return pre-addressed, stamped envelope was mailed to parents of 573 students in the no-preschool sample. Data collection follow-up consisted of a second mailing of the questionnaire. The return rate was 34 percent and was skewed (68 percent) in favor of the parents who were home with the preschool child and not regularly employed.

Instrumentation

The specified measures of school achievement included the performance indicators on which students were assessed as a part of their educational program. No new instruments were administered to students in the course of the study.

Developmental Indicators for the Assessment of Learning (DIAL)

The DIAL was a standardized screening instrument which included 29 objectives and was designed to identify children with potential learning problems. The four functional areas assessed were gross motor skills, fine motor skills, concepts, and communication. The DIAL was administered by classroom teachers to students entering kindergarten.
Ready Steps Language Survey

The instrument was designed by the Houghton-Mifflin publishers to provide information concerning the prereading skills essential for progress in formal reading. The instrument contained ten skills which were administered by the classroom teachers to kindergarten students in the fall and in the spring of the school year. The Ready Steps Language Survey was used as a diagnostic approach to early identification of reading readiness needs for progress in the Houghton-Mifflin reading basal series.

Reading and Mathematics Minimum Skills

Beginning with the 1986-87 school year, grade-level progression of kindergarten students was determined by mastery of minimum progression requirements in reading and mathematics. The student was required to demonstrate mastery of 11 mathematics and 10 reading minimum skills as determined by indicators of mastery and teacher evaluation. This was a local system measure of the standard for promotion.

Getting Ready To Read

The Houghton-Mifflin prereading program was used for kindergarten students. The performance of students in the Getting Ready To Read readiness basal was expected to be at a level which indicated that the student was ready to begin the first preprimer reading basal. Performance was measured on the Tests of Basic Reading Skills Survey which was administered by the classroom teacher.

California Achievement Tests (CAT)

The standardized achievement test for norm-referenced testing was the California Achievement Tests (1985 edition). The test was administered to students as a part of the systemwide achievement testing program in the spring of
the year. The total prereading and total mathematics scores were used as measures of achievement. The California Achievement Tests were designed to facilitate functional level testing to measure skills which were taught in the grade for which the test level was recommended.

**Procedures**

The kindergarten preassessment program was geared toward measuring the functional level of students through health screenings for vision, hearing, and dental; assessment of gross motor and fine motor skills and pre-reading readiness.

The Developmental Indicators for the Assessment of Learning (DIAL) was a screening instrument designed to assess the four functional areas of gross motor skills, fine motor skills, concepts, and communication. The Ready Steps Language Survey was an individually administered diagnostic test to determine the child's readiness for the Houghton-Mifflin's *Getting Ready To Read* program or other pre-reading programs. The instrument consisted of ten subtests — one for each of the ten skill areas considered prerequisites to pre-reading: auditory discrimination, following oral directions, instructional language, general vocabulary, oral language development, listening comprehension, sequencing, categorizing, using oral context, and letter form discrimination.

Each student entering kindergarten was individually screened with the gross motor and fine motor subtests of the DIAL. Each child was subsequently assessed on the Ready Steps Language Survey. If the child had difficulty (nonmastery) for the first three subtests — auditory discrimination, following oral directions, and instructional language — the recommended procedure was that the child would receive remediation for these subtest items before proceeding with the
assessment of the remaining subtests on the Ready Steps Language Survey. Further diagnosis was done with the concepts and communication subtests of the DIAL. The DIAL and the Ready Steps Language Survey were administered by classroom teachers as initial screenings in the fall of the school year for entering kindergarten students.

The kindergarten post assessment program consisted of the administration of the specified measures of school achievement: Reading and mathematics minimum skills, Getting Ready To Read, and the California Achievement Tests (CAT).

The ultimate objective of the post assessment was the school system's Pupil Progression Plan which was based on the expectation that most students would satisfactorily progress from one grade to the next. The post assessment data were used in concert with teacher evaluation to determine the educational placement of the student for the next school year. Under the Pupil Progression Plan, a student may be promoted to the next grade level, administratively placed "at risk" in the next grade level, or retained in the current grade level.
Treatment of Data

Statistical treatment of data included those appropriate techniques for descriptive statistics, measures of association, analysis to determine the variables which were related to treatment outcomes, and to measure the effects of the variables on treatment outcomes. The significance level for hypothesis testing was the .05 level of probability.

The Statistical Package for the Social Sciences (SPSSX) and the DAISY computer software package for statistical treatment of data were used for data analysis, and included the following:

Descriptive Statistics

Descriptive statistics answered the research question of what were the differences in the descriptive characteristics of the alternative child care arrangements which families employed as compared to the conventional day care in center, home, and other group-based delivery models. Descriptive statistics were used to organize and analyze the data collected on the Child Care Questionnaire.

Chi-Square Test and t-Test of Significance

To test for achievement differences between children in the no-preschool group who were cared for in the child's home as compared to care away from the child's home, the chi-square analysis was used. Achievement differences were analyzed for the preassessment and post assessment instruments administered: Ready Steps Language Survey, Reading and Mathematics Minimum Skills, Getting Ready To Read, and the California Achievement Tests.
Analysis of Variance

To test for achievement differences among the three groups in the study, the analysis of variance was used. Achievement differences were analyzed for the post assessments at the end of the kindergarten year: the California Achievement Tests, and progression status under the local school system's Pupil Progression Policy for kindergarten students.
CHAPTER IV

PRESENTATIONS AND ANALYSIS OF DATA

One interest in the study was to describe the child care settings which families employed as alternatives to the formal, more conventional day care in center-based, home-based, or group-based delivery models. The alternative child care delivery system described in the study included care provided by the parent(s) or guardian(s) and outside of the parent-child bond through child care arrangements in the child's home or away from the child's home.

Descriptive statistics were used for the first research question and hypothesis: what were the differences in the descriptive characteristics of the alternative child care arrangements which families employed as compared to the conventional day care in center, home, and other group-based delivery models? Descriptive statistics were used to organize and analyze the data collected on the Child Care Questionnaire.

The descriptive statistics from the Child Care Questionnaire regarding the place of child care, who provided the child care, the number and ages of the children in the child care setting, the number of adult caregivers, and the nature of the child care arrangements are presented in Table 1.

As the distribution in Table 1 indicated, most of the families employed child care arrangements in the child's home (134, 68 percent), with the parent(s) or guardian(s) as the primary caregiver (55 percent). In the absence of the parent-child bond, care was provided by other family
### Descriptive Statistics

#### Table 1

**Alternative Child Care Arrangements in Child's Home and Away from Child's Home**

**Child Care Questionnaire Sample**

<table>
<thead>
<tr>
<th>Descriptive Variable</th>
<th>Place of Child Care</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In Child's Home</td>
<td>Away From Child's Home</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td><strong>Type of Caregiver</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent or guardian</td>
<td>109</td>
<td>81</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other family member</td>
<td>16</td>
<td>12</td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td>Baby sitter or housekeeper</td>
<td>4</td>
<td>3</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>Friend or neighbor</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>In home of another family</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Parent's work place</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Multiple caregivers</td>
<td>5</td>
<td>4</td>
<td>19</td>
<td>31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>134</td>
<td>100</td>
<td>62</td>
<td>100</td>
</tr>
<tr>
<td><strong>Number of Children</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kindergarten child only</td>
<td>38</td>
<td>28</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>2 to 3 children</td>
<td>73</td>
<td>55</td>
<td>17</td>
<td>28</td>
</tr>
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<td>4 to 5 children</td>
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<td>7</td>
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<tr>
<td>6 to 7 children</td>
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<td>6</td>
<td>10</td>
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<td>*10 or more children</td>
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<td>0</td>
<td>*20</td>
<td>32</td>
</tr>
<tr>
<td>Missing cases</td>
<td>7</td>
<td>5</td>
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<tr>
<td><strong>Total</strong></td>
<td>134</td>
<td>100</td>
<td>62</td>
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<tr>
<td><strong>Ages of Children</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Less than 1 year</td>
<td>16</td>
<td>9</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>1 through 2 years</td>
<td>21</td>
<td>12</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>3 through 5 years</td>
<td>102</td>
<td>59</td>
<td>47</td>
<td>53</td>
</tr>
<tr>
<td>6 years or older</td>
<td>35</td>
<td>20</td>
<td>47</td>
<td>53</td>
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<td><strong>Number of Adult Caregivers</strong></td>
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<td>1 adult</td>
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<td>57</td>
<td>16</td>
<td>26</td>
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<tr>
<td>2 adults</td>
<td>41</td>
<td>31</td>
<td>21</td>
<td>34</td>
</tr>
<tr>
<td>3 adults</td>
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<td>6</td>
<td>7</td>
<td>11</td>
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<tr>
<td>4 adults</td>
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<td>5</td>
<td>3</td>
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<tr>
<td>5 or more adults</td>
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<td>0</td>
<td>9</td>
<td>14</td>
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<tr>
<td>Missing cases</td>
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<td>1</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>134</td>
<td>100</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

*Children who had short-term, group-based day care.
<table>
<thead>
<tr>
<th>Descriptive Variable</th>
<th>In <strong>Child's Home</strong></th>
<th>Away From Child's Home</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Place of Child Care</strong></td>
<td><strong>N</strong></td>
<td><strong>%</strong></td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>Why Child Care Was Needed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment of parent/guardian</td>
<td>11</td>
<td>70</td>
<td>43</td>
</tr>
<tr>
<td>School or job training</td>
<td>2</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Illness, disability, or family problems</td>
<td>2</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Education of child</td>
<td>1</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>100</td>
<td>62</td>
</tr>
<tr>
<td>Number of Days Per Week</td>
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<td></td>
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</tr>
<tr>
<td>1 to 2 days</td>
<td>2</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>3 to 4 days</td>
<td>1</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>5 days</td>
<td>8</td>
<td>50</td>
<td>49</td>
</tr>
<tr>
<td>More than 5 days</td>
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<td>25</td>
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<tr>
<td>Other</td>
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<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Missing cases</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>100</td>
<td>62</td>
</tr>
<tr>
<td>Number of Hours Per Day</td>
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<tr>
<td>Between 1 and 3 hours</td>
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<td>11</td>
<td>5</td>
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<tr>
<td>Between 3 and 5 hours</td>
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<td>17</td>
<td>6</td>
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<tr>
<td>Between 5 and 7 hours</td>
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<td>Between 7 and 9 hours</td>
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<td>29</td>
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<td>More than 9 hours</td>
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<td>Other</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Missing cases</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
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<td>100</td>
<td>62</td>
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<tr>
<td>Number of Months</td>
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<tr>
<td>Less than 6 months</td>
<td>3</td>
<td>19</td>
<td>2</td>
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<tr>
<td>6 months to 1 year</td>
<td>4</td>
<td>25</td>
<td>27</td>
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<tr>
<td>More than 1 year</td>
<td>7</td>
<td>44</td>
<td>23</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Missing cases</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>100</td>
<td>62</td>
</tr>
<tr>
<td>Meals Provided</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breakfast</td>
<td>12</td>
<td>24</td>
<td>37</td>
</tr>
<tr>
<td>Morning snack</td>
<td>7</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Lunch</td>
<td>14</td>
<td>28</td>
<td>30</td>
</tr>
<tr>
<td>Afternoon snack</td>
<td>8</td>
<td>16</td>
<td>37</td>
</tr>
<tr>
<td>Dinner</td>
<td>9</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
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<td>100</td>
<td>133</td>
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</table>

**Children in care of person other than parent or guardian.
<table>
<thead>
<tr>
<th>Place of Child Care</th>
<th><strong>Child’s Home</strong></th>
<th><strong>Away From Child’s Home</strong></th>
<th><strong>Total</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>N</strong></td>
<td><strong>%</strong></td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>Transportation Provided</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent or guardian</td>
<td>50</td>
<td>81</td>
<td>50</td>
</tr>
<tr>
<td>Other family member</td>
<td>4</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Child care program or person</td>
<td>5</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>62</td>
</tr>
<tr>
<td>Cost of Child Care</td>
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<td></td>
</tr>
<tr>
<td>$1 to $10 per week</td>
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<td>6</td>
<td>3</td>
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<tr>
<td>$11 to $20 per week</td>
<td>2</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>$21 to $30 per week</td>
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<td>19</td>
<td>16</td>
</tr>
<tr>
<td>$31 to $40 per week</td>
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<td>25</td>
<td>12</td>
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<tr>
<td>More than $40 per week</td>
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<td>8</td>
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<tr>
<td>No cost</td>
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<td>31</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Missing cases</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>100</td>
<td>62</td>
</tr>
</tbody>
</table>

**Children in care of person other than parent or guardian.**

Child care in child’s home, N = 134

Child care away from child’s home, N = 62
members and babysitters or housekeepers. When care was provided during
the day on weekdays, the number of children in in-home care consisted of
the kindergarten child only for 25 percent of the families and from 2 to
3 children for 50 percent of the families. From the description of the
number of children at the place of child care and the ages of the
children, about one-half were ages 3 to 5, with few infants (10 percent),
toddlers (16 percent), and some older children (17 percent). The children
in the in-home child care settings were cared for primarily by one adult
caregiver (47 percent) during the day on weekdays, and with 32 percent of
the settings consisting of two adult caregivers.

Families who employed child care arrangements away from the child's
home depended primarily on other family members (27 percent) or
babysitters and housekeepers (19 percent). The other child care
arrangements were made with friends or neighbors (8 percent), in the home
of another family (5 percent), at parents work place (10 percent), or
other combinations of care involving multiple caregivers (31 percent).
The multiple child care arrangements during the day on weekdays
represented split days between parent(s) or guardian(s) and other family
members, parent(s) or guardian(s) and babysitters, drop-in or half-day
nursery, and parents who worked part-time. The away-from-home child care
arrangements represented larger groupings of children than the in-home
care, ranging from 2 to 7 children for 49 percent of the child care
settings. From explanations on the Child Care Questionnaire, about one-
third of the families employing away-from-home child care alternatives
indicated that their children had been exposed to child care settings of
10 or more children at some time during the year preceding enrollment in kindergarten. This group probably consisted of children who had group-based preschool experience for less than six months, or for a lesser period than the type of care employed most of the time.

When families employed child care arrangements in the child's home or away from the child's home with persons other than the parents or guardians, the reason stated most often was that child care was needed for employment (69 percent). Ten percent of the families needed child care because of school or job training of parents or guardians. Other reasons were the education of the child or a combination of factors necessitating child care. A small proportion of the sample (4 percent) had illness, disability or family problems which necessitated child care away from the child's home.

Child care both in-home and away-from-home by persons other than the parents was provided primarily for 5 days per week (74 percent) and lasted for 7 to 9 hours per day (47 percent). The varied needs and preferences of the families indicated that 12 percent used child care less than 5 days per week and 5 percent had child care arrangements for more than 5 days per week. Correspondingly, the hours of child care varied from less than a typical 8-hour workday (33 percent) to more than 9 hours per day (13 percent). Families used these arrangements from 6 month to more than a year (78 percent) prior to child's enrollment in kindergarten, and families depended upon the child care setting to provide children with their nutritional needs (breakfast, lunch, and afternoon snack). About 10 percent of the children were at the child care setting at dinner time.
Transportation to and from the away-from-home child care settings was provided most of the time by the parents or guardians (31 percent), other family members, or a shared arrangement between the parents and one of the other transportation sources. The usual cost per week for child care in the in-home and away-from-home settings clustered in the range of 21 to 30 dollars (24 percent) and 31 to 40 dollars (21 percent). Comments on the Child Care Questionnaire indicated that the cost often included more than one child. While 18 percent of the families paid 20 dollars or less per week for child care, 12 percent paid more than 40 dollars and 15 percent had child care arrangements at no cost. There was no apparent difference in the usual cost of alternative child care when provided by someone other than the parents or guardians. For care in the child's home by persons other than the parents, a larger percentage of families had child care arrangements at no cost (31 percent) when compared to families who used child care away from the child's home.

Families were generally very much or entirely satisfied with the child care arrangements (58 percent), and a small group (19 percent) indicated that they were less satisfied and would have preferred another type of child care arrangement.

The second aim of the Child Care Questionnaire was to explore the educational dimensions of the child care settings to identify factors potentially associated with student achievement in kindergarten. The questionnaire elicited information about the presence or absence of equipment, materials, and furnishings determined by the Child Development Section of the Georgia Department of Human Resources as essentials to the
quality of the learning environment for preschoolers. The Department further considered the training, qualification, and the role of the caregiver as basic ingredients in structuring the quality of the child care environment.

Data in Table 1 indicated that the persons who cared for the child in the absence of the parent-child bond were other family members, babysitter or housekeeper, friend or neighbor, in the home of another family, at the parent's work place, drop-in and part-time care, and sometimes a combination of these caregivers. Families indicated that the statements which best described the caregiver(s) and the nature of the informal or formal child care arrangement were as follows:

- 42 percent (33) of the caregivers asked the families for information to fill out an enrollment or registration form.
- 46 percent (36) of the caregivers asked for a health statement for the child.
- 55 percent (43) of the caregivers discussed the daily schedule with the parents.
- 76 percent (59) of the caregivers discussed with the parents what action was to be taken for illness or emergency of the child.
- 55 percent (43) of the caregivers discussed with parents how the child was to be disciplined.
- 55 percent (43) of the caregivers discussed with the parents the things that the child was learning.
- 37 percent (29) of the caregivers gave parents activities to do with the child at home.
45 percent (35) of the caregivers discussed his or her training or experience in child care with the parents.

35 percent (27) of the caregivers had a current license or certificate to provide child care services.

The quality of the learning environment and the training and qualification of the caregiver are considered to be factors which distinguish a child care setting conducive to growth, development, and learning from custodial care. Families who employed alternative child care arrangements away from the child's home indicated that virtually all of the recommended basic types of child care equipment, materials, supplies, and furnishings were a part of the child care setting, either during child's short-term stay in group-based care or in the combination of settings utilized. In examining the data for families who provided care in the child's home, there were variations in the types and number of items of equipment, materials, and furnishings which were present in the child care setting.

The research priorities for the study were to ascertain facts and establish relationships among the variables stated in the research questions. The second research question asked:

How does the level of achievement for students who received no formal preschool experience differ within the group for students who received alternative child care arrangements in the child's home as compared to students who received child care away from the child's home?
The first null hypothesis stated that:

\[ H_{01} : \text{There is no significant difference in the achievement within the group for kindergarten students from the alternative child care delivery system who received child care in the child's home as compared to child care away from the child's home.} \]

To test for achievement differences between students in the no-preschool group who were cared for in the child's home as compared to care away from the child's home, the chi-square test of independence and the t-test of significance were used. The significance level for hypothesis testing was the .05 level of probability. Achievement differences were analyzed for the preassessment and post assessment instruments administered: Ready Steps Language Survey, reading and mathematics minimum skills, Getting Ready to Read, progression status, and the California Achievement Tests.

Table 2 presented the assessment results for kindergarten students on the preassessment of the Ready Steps Language Survey. When a comparison was made of the place of child care and students performance on the kindergarten readiness assessment, children from the away-from-home child care settings scored higher, on the average, than children from the in-home child care settings. While there was no statistically significant difference between the two groups for 8 of the 10 skills, the distribution allowed for the examination of the similarities and differences in scoring patterns. Students in both groups had lower preassessment scores for skill no. 3, instructional language; skill no. 5, oral language development; and skill no. 7 sequencing.
### TABLE 2

PLACE OF CHILD CARE AND STUDENTS MASTERY OF READY STEPS LANGUAGE SKILLS
CHILD CARE QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Ready Steps Language Survey Skill</th>
<th>Child Care In Child's Home</th>
<th>Child Care Away From Child's Home</th>
<th>Total Students Mastering Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Auditory Discrimination</td>
<td>95</td>
<td>80</td>
<td>51</td>
</tr>
<tr>
<td>Following Oral Directions</td>
<td>108</td>
<td>94</td>
<td>56</td>
</tr>
<tr>
<td>Instructional Language</td>
<td>69</td>
<td>59</td>
<td>40</td>
</tr>
<tr>
<td>General Vocabulary</td>
<td>98</td>
<td>92</td>
<td>55</td>
</tr>
<tr>
<td>Oral Language Development(^a)</td>
<td>61</td>
<td>57</td>
<td>43</td>
</tr>
<tr>
<td>Listening Comprehension</td>
<td>75</td>
<td>70</td>
<td>45</td>
</tr>
<tr>
<td>Sequencing</td>
<td>54</td>
<td>51</td>
<td>35</td>
</tr>
<tr>
<td>Categorizing</td>
<td>95</td>
<td>89</td>
<td>52</td>
</tr>
<tr>
<td>Using Oral Context(^b)</td>
<td>80</td>
<td>75</td>
<td>49</td>
</tr>
<tr>
<td>Letter Form Discrimination</td>
<td>97</td>
<td>94</td>
<td>53</td>
</tr>
</tbody>
</table>

\(^a\) \(X^2 (1) = 7.0709, \ p = .0078\)

\(^b\) \(X^2 (1) = 4.7912, \ p = .0286\)

Child Care In Child's Home, N=134
Child Care Away From Child's Home, N=62
Table 3 summarized the Child Care Questionnaire responses for in-home child care arrangements, and provided the chi-square measure of association for the presence of recommended basic child care equipment, materials, and furnishings in the in-home child care setting and performance on the kindergarten readiness preassessment. Similar data for away-from-home care were presented in Table 4.

The distribution in Table 3 showed that the presence (Y) or absence (N) of recommended basic child care items in the setting had a significant association with student performance on specific skill areas on the kindergarten readiness assessment. The data suggested that in terms of performance on the Ready Steps Language Survey, it was more favorable for children in the in-home child care settings to have child-size equipment and furnishings, manipulatives for small muscle activities, materials for visual perception, art and sensory perception, dramatic and social play, and verbal communication.

A significant chi-square value was obtained for the distribution of child care items in the in-home setting and student performance on Ready Steps Language Survey skills numbers 1, 3, 5, 6, 7, and 8. These skills were auditory discrimination \( (X^2(1)=5.781, \ p=.0162) \), instructional language \( (X^2(1)=4.193, \ p=.0406) \), oral language development \( (X^2(1)=6.311, \ p=.0120) \), listening comprehension \( (X^2(1)=7.676, \ p=.0056) \), sequencing \( (X^2(1)=3.989, \ p=.0458) \), and categorizing \( (X^2(1)=3.900, \ p=.0483) \), respectively. More specifically, the items in the child care setting which were more favorable to kindergarten readiness were child-size equipment and furnishings; lego, tinker toys or beads and string; paints,
# TABLE 3

**STUDENT MASTERY OF READY STEPS LANGUAGE SURVEY SKILLS BY EQUIPMENT AND MATERIALS IN THE CHILD CARE SETTING, SUMMARY**

**Child Care Questionnaire Sample**

<table>
<thead>
<tr>
<th>In Child's Home</th>
<th>Percent of Students</th>
<th>Mastering Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment and Materials in Child Care Setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child-size tables, chairs, furnishings</td>
<td>71%</td>
<td>Oral Language Development</td>
</tr>
<tr>
<td>Lego, tinker toys, beads and string</td>
<td>97%</td>
<td>Categorizing</td>
</tr>
<tr>
<td>Transportation toys</td>
<td>57%</td>
<td>Sequencing</td>
</tr>
<tr>
<td>Paint, crayons, clay, glue</td>
<td>94%</td>
<td>Categorizing</td>
</tr>
<tr>
<td>Pencils, paint brushes, child size scissors</td>
<td>94%</td>
<td>Categorizing</td>
</tr>
<tr>
<td>Paper for writing, drawing, painting, cutting</td>
<td>94%</td>
<td>Categorizing</td>
</tr>
<tr>
<td>Dolls, dress-up clothing, costumes</td>
<td>67%</td>
<td>Instructional Language</td>
</tr>
<tr>
<td>Housekeeping toys</td>
<td>96%</td>
<td>Categorizing</td>
</tr>
<tr>
<td>Picture books, story books, magazines</td>
<td>97%</td>
<td>Following Oral Directions</td>
</tr>
<tr>
<td>Puppets, flannel board story or picture cut-outs</td>
<td>98%</td>
<td>Categorizing</td>
</tr>
<tr>
<td>Storytime, finger play, singing</td>
<td>90%</td>
<td>Auditory Discrimination</td>
</tr>
</tbody>
</table>
TABLE 4
STUDENT MASTERY OF READY STEPS LANGUAGE SURVEY SKILLS BY EQUIPMENT AND MATERIALS IN THE CHILD CARE SETTING, SUMMARY

Child Care Questionnaire Sample

<table>
<thead>
<tr>
<th>Away From Child's Home</th>
<th>Percent of Students Mastering Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation toys</td>
<td>97% - Using Oral Context</td>
</tr>
<tr>
<td>Paints, crayon, clay, glue</td>
<td>100% - Letter Form Discrimination</td>
</tr>
<tr>
<td>Housekeeping toys</td>
<td>88% - Instructional Language</td>
</tr>
<tr>
<td>Housekeeping toys</td>
<td>83% - Sequencing</td>
</tr>
</tbody>
</table>
crayons, scissors and paper; and storytime, fingerplay, or singing. The skills most often associated with the presence of these items in the in-home child care settings were oral language development and categorizing.

The distribution in Table 4 for away-from-home care indicated a significant chi-square value for the Ready Steps Language Survey Skills numbers 3, 7, 9, and 10. These skills were instructional language ($X^2(1)=4.027$, $p=.0448$), sequencing ($X^2(1)=5.709$, $p=.0169$), using oral context ($X^2(1)=3.790$, $p=.0516$), and letter form discrimination ($X^2(1)=4.504$, $p=.0338$), respectively. More specifically, the items in the child care setting which were more favorable to kindergarten readiness were housekeeping toys, transportation toys; paints and crayons. The skills associated with the presence of these items in the away-from-home child care settings were instructional language, sequencing, using oral context and letter form discrimination.

Another factor in the educational dimension of the child care setting was the educational level of the parents. Tables 5 and 6 allowed for an examination of the education of the parents and students performance on the kindergarten readiness preassessment.

The educational levels of the mother(s) or guardian(s) and father(s) or guardians(s) presented in Table 5 indicated that the highest level of education attained for families in the sample ranged from elementary school to doctorate. The greater proportion of the mothers indicated that they were high school graduates (21 percent) or had vocational school or some college (42 percent). Twenty-three percent had less than a high school diploma and 14 percent were college graduates and beyond. While
### DESCRIPTIVE STATISTICS

#### TABLE 5

EDUCATION OF PARENT(S)/GUARDIAN(S)  
CHILD CARE QUESTIONNAIRE SAMPLE

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Mother</th>
<th>Father</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Less than high school graduate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary school</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Some high school</td>
<td>36</td>
<td>20</td>
</tr>
<tr>
<td>High school graduate</td>
<td>39</td>
<td>21</td>
</tr>
<tr>
<td>Vocational school or some college</td>
<td>77</td>
<td>42</td>
</tr>
<tr>
<td>College graduate</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Beyond college</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate work</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Doctorate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Reporting Data</strong></td>
<td>183</td>
<td>100</td>
</tr>
<tr>
<td>Missing cases</td>
<td>13</td>
<td>7</td>
</tr>
</tbody>
</table>
none of the mothers indicated the doctorate level, 56 percent attained a level of education beyond high school. The profile of the educational level for the fathers was somewhat similar to that for the mothers in that the largest percentage were high school graduates (31 percent). A similar percentage of the fathers had less than a high school diploma (22 percent as compared to 23 percent for mothers), and a somewhat lower percentage of the fathers attained a level of education beyond high school (47 percent as compared to 56 percent for mothers). However, 3 percent of the fathers indicated the doctorate level of education.

The distribution in Table 6 allowed for some observable patterns in the performance of students on the kindergarten readiness preassessment in relationship to the education of the parents. When statistical significance at the .05 level was obtained, it was in favor of the education of the mother. The pattern of performance which could be observed was that student mastery of the Ready Steps Language Survey skills was generally highest above the level of high school graduate and tended to increase as education increased. This pattern of performance was discernible even for those skills which seemed most difficult for entering kindergarten students (skill No. 3, instructional language; skill No. 5, oral language development; and skill No. 6, sequencing.)

The data in Table 7 presented the association of students performance and the socioeconomic index for the schools in the sample (SES). Using the percentage of students participation in the free and reduced-priced school lunch program, the schools were stratified by low SES, middle SES, and high SES.
### TABLE 6
THE EDUCATION LEVEL OF PARENTS AND STUDENT MASTERY OF READY STEPS LANGUAGE SURVEY SKILLS
CHILD CARE QUESTIONNAIRE SAMPLE

<table>
<thead>
<tr>
<th>Education Level of Parents</th>
<th>Skill 1 N</th>
<th>Skill 2 N</th>
<th>Skill 3 N</th>
<th>Skill 4 N</th>
<th>Skill 5 N</th>
<th>Skill 6 N</th>
<th>Skill 7 N</th>
<th>Skill 8 N</th>
<th>Skill 9 N</th>
<th>Skill 10 N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Less than high school graduate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>24</td>
<td>71</td>
<td>29</td>
<td>88</td>
<td>21</td>
<td>62</td>
<td>26</td>
<td>93</td>
<td>15</td>
<td>56</td>
</tr>
<tr>
<td>Father</td>
<td>24</td>
<td>86</td>
<td>27</td>
<td>100</td>
<td>18</td>
<td>64</td>
<td>26</td>
<td>96</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td>High school graduate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>26</td>
<td>70</td>
<td>34</td>
<td>100</td>
<td>16</td>
<td>46</td>
<td>30</td>
<td>88</td>
<td>17</td>
<td>50</td>
</tr>
<tr>
<td>Father</td>
<td>32</td>
<td>78</td>
<td>38</td>
<td>95</td>
<td>22</td>
<td>55</td>
<td>32</td>
<td>89</td>
<td>23</td>
<td>64</td>
</tr>
<tr>
<td>Vocational school or some college</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>62</td>
<td>91</td>
<td>68</td>
<td>100</td>
<td>46</td>
<td>68</td>
<td>65</td>
<td>98</td>
<td>46</td>
<td>70</td>
</tr>
<tr>
<td>Father</td>
<td>39</td>
<td>91</td>
<td>41</td>
<td>100</td>
<td>28</td>
<td>67</td>
<td>39</td>
<td>95</td>
<td>25</td>
<td>41</td>
</tr>
<tr>
<td>College graduate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>11</td>
<td>92</td>
<td>11</td>
<td>92</td>
<td>9</td>
<td>75</td>
<td>10</td>
<td>91</td>
<td>7</td>
<td>64</td>
</tr>
<tr>
<td>Father</td>
<td>8</td>
<td>89</td>
<td>8</td>
<td>89</td>
<td>8</td>
<td>89</td>
<td>8</td>
<td>100</td>
<td>8</td>
<td>75</td>
</tr>
<tr>
<td>Beyond college</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>12</td>
<td>100</td>
<td>11</td>
<td>92</td>
<td>10</td>
<td>83</td>
<td>12</td>
<td>100</td>
<td>10</td>
<td>83</td>
</tr>
<tr>
<td>Father</td>
<td>16</td>
<td>100</td>
<td>16</td>
<td>100</td>
<td>12</td>
<td>75</td>
<td>16</td>
<td>100</td>
<td>15</td>
<td>94</td>
</tr>
</tbody>
</table>

**TOTAL STUDENTS MASTERING SKILL**

|                      | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % |
| Mother               | 175/203 (86%) | 153/179 (87%) | 150/180 (83%) | 102/161 (63%) | 143/151 (95%) | 95/150 (63%) | 110/150 (73%) | 82/151 (54%) | 136/151 (90%) | 120/150 (80%) | 160/150 (100%) |
| Father               | 133/167 (80%) | 130/133 (98%) | 88/135 (65%) | 121/128 (95%) | 93/127 (73%) | 79/127 (62%) | 67/128 (52%) | 119/128 (93%) | 103/127 (81%) | 119/124 (96%) |  

*Indicates a chi-square value significant at p < .05.
### TABLE 7
SOCIOECONOMIC INDEX FOR SCHOOLS AND STUDENTS MASTERY OF READY STEPS LANGUAGE SKILLS
CHILD CARE QUESTIONNAIRE SAMPLE

<table>
<thead>
<tr>
<th>Ready Steps Language Survey Skill</th>
<th>Low SES</th>
<th>Middle SES</th>
<th>High SES</th>
<th>Total Students Mastering Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Auditory Discrimination</td>
<td>75</td>
<td>82</td>
<td>56</td>
<td>82</td>
</tr>
<tr>
<td>Following Oral Directions</td>
<td>85</td>
<td>93</td>
<td>63</td>
<td>98</td>
</tr>
<tr>
<td>Instructional Language a</td>
<td>48</td>
<td>53</td>
<td>47</td>
<td>71</td>
</tr>
<tr>
<td>General Vocabulary</td>
<td>78</td>
<td>93</td>
<td>59</td>
<td>95</td>
</tr>
<tr>
<td>Oral Language Development</td>
<td>46</td>
<td>55</td>
<td>45</td>
<td>71</td>
</tr>
<tr>
<td>Listening Comprehension</td>
<td>58</td>
<td>69</td>
<td>51</td>
<td>84</td>
</tr>
<tr>
<td>Sequencing b</td>
<td>33</td>
<td>39</td>
<td>43</td>
<td>69</td>
</tr>
<tr>
<td>Categorizing</td>
<td>73</td>
<td>87</td>
<td>59</td>
<td>95</td>
</tr>
<tr>
<td>Using Oral Contextc</td>
<td>61</td>
<td>73</td>
<td>54</td>
<td>89</td>
</tr>
<tr>
<td>Letter Form Discrimination</td>
<td>77</td>
<td>92</td>
<td>57</td>
<td>98</td>
</tr>
</tbody>
</table>

\[a \chi^2 (2) = 10.134, p = 0.0063\]
\[b \chi^2 (2) = 17.993, p = 0.001\]
\[c \chi^2 (2) = 6.221, p = 0.046\]

LOW SES
- 75 82
- 85 93
- 48 53
- 78 93
- 46 55
- 58 69
- 33 39
- 73 87
- 61 73
- 77 92

MIDDLE SES
- 56 82
- 63 98
- 47 71
- 59 95
- 45 74
- 51 84
- 43 69
- 59 95
- 54 89
- 57 98

HIGH SES
- 15 94
- 16 100
- 14 88
- 16 100
- 13 81
- 11 69
- 13 81
- 15 94
- 14 88
- 16 100
The chi-square analysis for the distribution of SES for the schools and kindergarten readiness showed a statistically significant difference in students performance on the Ready Steps Language Survey for skill No. 3, instructional language \( (X^2(2)=10.134, \ p=.0063) \), skill No. 7, sequencing \( (X^2(2)=17.993, \ p=.0001) \), and skill No. 9, using oral context \( (X^2(2)=6.221, \ p=.0446) \).

The results of the analysis of the preassessment data for the first null hypothesis showed that the null hypothesis of no difference in the student achievement between the in-home child care group and the away-from-home child care groups was not rejected.

From the chi-square analysis, the difference between the in-home child care group and the away-from-home child care group was non significant for the kindergarten preassessment instrument, Ready Steps Language Survey. For the total no preschool group from the child care sample, variables in the alternative child care setting (equipment, parent education, and school SES index) influenced student achievement for instructional language, sequencing, and using oral context skills.

Tables 8, 9, and 10 showed the results of the post assessment data for the first null hypothesis: There was no significant difference in the achievement within the group for kindergarten students from the alternative child care delivery system who received child care in the child's home as compared to child care away from the child's home.

Data in Table 8 presented the results of the t-test of significance in which the difference between the two sample means was tested for reading and mathematics scores on the California Achievement Tests. The obtained
t ratio for reading, \( t(148) = -1.197 \) did not exceed the critical value at the .05 level of significance. The obtained t ratio for mathematics, \( t(153) = -1.482 \), did not exceed the critical value at the .05 level of confidence. Therefore, the researcher did not reject the null hypothesis of no difference between sample means for reading and mathematics scores on the California Achievement Tests at post assessment.

Data in Table 9 presented the results of the chi-square test of independence for place of child care (in-home vs. away-from-home), and progression status at the end of the year (promoted, administratively placed and retained).

The obtained chi-square value, \( X^2(2) = 5.645 \), did not exceed the critical value at the .05 level of significance. Therefore, the researcher did not reject the null hypothesis of independence for place of child care (in-home vs. away-from-home) and progression status at the end of the year (promoted, administratively placed and retained).
# TABLE 8

**t-TEST OF SIGNIFICANCE**

PLACE OF CHILD CARE AND READING AND MATHEMATICS SCORES ON THE CALIFORNIA ACHIEVEMENT TESTS
CHILD CARE QUESTIONNAIRE SAMPLE

<table>
<thead>
<tr>
<th>In-Home Care</th>
<th>Away-From Home Care</th>
<th>t-ratio</th>
<th>DF</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td></td>
<td><strong>t</strong></td>
<td><strong>DF</strong></td>
<td><strong>Prob.</strong></td>
</tr>
<tr>
<td>124</td>
<td>62</td>
<td>-1.197</td>
<td>148</td>
<td>.231</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td></td>
<td>64.11</td>
<td>69.29</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.197</td>
<td>148</td>
<td>.231</td>
</tr>
<tr>
<td><strong>S. D.</strong></td>
<td></td>
<td>31.05</td>
<td>26.13</td>
<td></td>
</tr>
</tbody>
</table>

**MATHEMATICS**

| **N**       |                     | **Mean** | **S. D.** | **DF** | **Prob.** |
| 124         | 62                  | 68.90    | 30.09 | 153    | .137     |
| **Mean**    |                     | 74.95    | 24.22 |       |          |
|             |                     | -1.482   | 153    | .137   |          |

* t-ratio significant at p < .05
TABLE 9

CHI-SQUARE TEST OF INDEPENDENCE

PLACE OF CHILD CARE AND PROGRESSION STATUS
CHILD CARE QUESTIONNAIRE SAMPLE

<table>
<thead>
<tr>
<th></th>
<th>Observed Frequency</th>
<th>Expected Frequency</th>
<th>Chi-Square</th>
<th>X^2</th>
<th>DF</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoted</td>
<td>100</td>
<td>104.484</td>
<td>.288</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>58</td>
<td>53.516</td>
<td>.562</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adm. Placed</td>
<td>6</td>
<td>4.629</td>
<td>.406</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2.371</td>
<td>.793</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retained</td>
<td>18</td>
<td>13.887</td>
<td>1.218</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>7.113</td>
<td>2.378</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtained Chi-Square</td>
<td>5.645</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td>.059</td>
</tr>
</tbody>
</table>

* Chi-square value significant at p<.05.
TABLE 10
STUDENTS PERFORMANCE UNDER THE PUPIL PROGRESSION POLICY, 1986-87
CHILD CARE QUESTIONNAIRE SAMPLE

<table>
<thead>
<tr>
<th>Progression Status</th>
<th>Group Total</th>
<th>Minimum Skills</th>
<th>Getting Ready To Read</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Reading</td>
<td>Math</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>M</td>
</tr>
<tr>
<td>Care in Child's Home</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promoted</td>
<td>100</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Administratively Placed</td>
<td>6</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Retained</td>
<td>18</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Total In-Home Care</td>
<td>124</td>
<td>100</td>
<td>106</td>
</tr>
<tr>
<td>Care Away From Child's Home</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promoted</td>
<td>58</td>
<td>94</td>
<td>58</td>
</tr>
<tr>
<td>Administratively Placed</td>
<td>1</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td>Retained</td>
<td>3</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Total Away-From Home Care</td>
<td>62</td>
<td>100</td>
<td>59</td>
</tr>
</tbody>
</table>

Key
M = Mastery of Skills
NM = Non-Mastery of Skills
NC = Non-Completion of Skills
NB = Did Not Begin Skills
The summary data in Table 10 provided the performance of students under the school system's 1986-87 Pupil Progression Policy for kindergarten students. The percentage of students retained were higher for the in-home child care group (15 percent) when compared to the away-from-home child care group (5 percent). The summary data showed that slightly more students in the in-home child care group (23, 19 percent) did not complete the reading readiness basal, Getting Ready to Read, when compared to the away-from-home child care group (4, 6 percent).

The results of the analysis of post assessment data for the first null hypothesis showed that the null hypothesis of no difference in students achievement between the in-home child care group and the away-from-home child care group was not rejected. The researcher concluded that there was no significant difference between the achievement of students in the in-home child care and away-from-home child care groups at post assessment.

The third research question asked:

How does the level of achievement for students who received no formal preschool experience compare to the following comparison groups:

a. Students with similar socioeconomic and demographic characteristics, who attended the same schools, and who received day care services from the public schools comprehensive child day care program. This comparison group is defined as the school system preschool group.
b. Students with similar socioeconomic and demographic characteristics who attended the same schools, and who received services from child care programs other than the local public schools comprehensive child day care program. This comparison group is defined as the non-school system preschool group.

The second null hypothesis stated that:

\[ H_{02} : \text{There is no difference in the achievement among the three comparison groups; no preschool group, school system preschool group, and the non-school system preschool group.} \]

To test for achievement differences among the three comparison groups, the chi-square test of independence and the analysis of variance were used. The significance level for hypothesis testing was at the .05 level of probability. Achievement differences were analyzed for the post assessment measures: The California Achievement Tests and the progression status (promoted, administratively placed and retained).

The study focused on the 1986-87 kindergarten class of approximately 5,500 students. Table 11 presented the preassessment performance of total system students on the Ready Steps Language Survey by preschool experience. From the total System group, a sample of 23 schools were selected. Table 12 provided preassessment performance on the Ready Steps Language Survey by day care experience for students in the 23 schools in the sample.

A comparative analysis of the data in Tables 11 and 12 supported the rationale and focus for the study. A large group of students entered the kindergarten class of 1986-87 with no significant preschool experience.
<table>
<thead>
<tr>
<th>Ready Steps Language Survey Skill</th>
<th>School System Preschool N=813</th>
<th>Non-School System Preschool N=2263</th>
<th>No or Less Than Six Mos. Preschool N=2419</th>
<th>Total Student Performance N=5495</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>NM</td>
<td>NT</td>
<td>M</td>
</tr>
<tr>
<td>Auditory Discrimination</td>
<td>91</td>
<td>8</td>
<td>1</td>
<td>92</td>
</tr>
<tr>
<td>Following Oral Directions</td>
<td>97</td>
<td>2</td>
<td>1</td>
<td>98</td>
</tr>
<tr>
<td>Instructional Language</td>
<td>70</td>
<td>28</td>
<td>2</td>
<td>73</td>
</tr>
<tr>
<td>General Vocabulary</td>
<td>90</td>
<td>3</td>
<td>7</td>
<td>93</td>
</tr>
<tr>
<td>Oral Language Development</td>
<td>62</td>
<td>31</td>
<td>7</td>
<td>68</td>
</tr>
<tr>
<td>Listening Comprehension</td>
<td>72</td>
<td>20</td>
<td>8</td>
<td>76</td>
</tr>
<tr>
<td>Sequencing</td>
<td>53</td>
<td>39</td>
<td>8</td>
<td>58</td>
</tr>
<tr>
<td>Categorizing</td>
<td>88</td>
<td>5</td>
<td>7</td>
<td>90</td>
</tr>
<tr>
<td>Using Oral Context</td>
<td>82</td>
<td>11</td>
<td>7</td>
<td>84</td>
</tr>
<tr>
<td>Letter Form Discrimination</td>
<td>90</td>
<td>2</td>
<td>8</td>
<td>93</td>
</tr>
</tbody>
</table>

M = Mastery of Skill
NM = Non-Mastery of Skill
NT = Not Tested on Skill
## TABLE 12

**KINDERGARTEN STUDENTS' PERFORMANCE ON READY STEPS LANGUAGE SURVEY BY DAY CARE EXPERIENCE**

**23 ELEMENTARY SCHOOLS IN SAMPLE**

<table>
<thead>
<tr>
<th>Ready Steps Language Survey Skill</th>
<th>Percent of Student Performance</th>
<th>School System Preschool N=156</th>
<th>Non-School System Preschool N=753</th>
<th>No or Less Than Six Mos. Preschool N=657</th>
<th>Total Student Performance N=1566</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>NM</td>
<td>NT</td>
<td>M</td>
<td>NM</td>
</tr>
<tr>
<td>Auditory Discrimination</td>
<td>93</td>
<td>7</td>
<td>--</td>
<td>93</td>
<td>7</td>
</tr>
<tr>
<td>Following Oral Directions</td>
<td>99</td>
<td>1</td>
<td>--</td>
<td>99</td>
<td>1</td>
</tr>
<tr>
<td>Instructional Language</td>
<td>72</td>
<td>28</td>
<td>--</td>
<td>76</td>
<td>23</td>
</tr>
<tr>
<td>General Vocabulary</td>
<td>91</td>
<td>3</td>
<td>6</td>
<td>95</td>
<td>1</td>
</tr>
<tr>
<td>Oral Language Development</td>
<td>65</td>
<td>29</td>
<td>6</td>
<td>71</td>
<td>25</td>
</tr>
<tr>
<td>Listening Comprehension</td>
<td>77</td>
<td>17</td>
<td>6</td>
<td>76</td>
<td>20</td>
</tr>
<tr>
<td>Sequencing</td>
<td>58</td>
<td>36</td>
<td>6</td>
<td>64</td>
<td>32</td>
</tr>
<tr>
<td>Categorizing</td>
<td>92</td>
<td>2</td>
<td>6</td>
<td>91</td>
<td>5</td>
</tr>
<tr>
<td>Using Oral Context</td>
<td>88</td>
<td>6</td>
<td>6</td>
<td>86</td>
<td>10</td>
</tr>
<tr>
<td>Letter Form Discrimination</td>
<td>92</td>
<td>2</td>
<td>6</td>
<td>93</td>
<td>2</td>
</tr>
</tbody>
</table>

M = Mastery of Skill  
NM = Non-Mastery of Skill  
NT = Not Tested on Skill
(44 percent of the total system and 42 percent for the 23 schools in the sample). Students generally had lower assessment scores for skill No. 3, instructional language; skill No. 5, oral language development; skill No. 6, listening comprehension, and skill No. 7, sequencing. Students with no significant preschool experience had the greatest difficulty with these skills.

The procedures for the assessment of kindergarten readiness provided that when students encountered initial difficulty with the first three skills, assessment on the other skills was not continued at that time. Tables 11 and 12 indicated that more students with no significant preschool experience received non-mastery or were not tested for all of the skills beyond the first three. One of the immediate educational consequences of this type of performance pattern, provided intervention was not successful, was student non-promotion to the next grade level.

Data in Table 13 provided the chi-square analysis of progression status for the three comparison groups; no preschool, school system preschool and non-school system preschool. The obtained chi-square value, $X^2(4)=68.176$, exceeded the critical value at the .05 level of significance. The null hypothesis was rejected and the researcher concluded that the proportion of students promoted, administratively placed, and retained at post assessment was dependent upon and influenced by the preschool experience of the group. Summary data in Table 14 showed that 93 percent of the non-school system preschool group were promoted, as compared to 89 percent for the school system preschool group, and 73 percent for the no preschool group.
### Table 13

**Chi-Square Test of Independence**

*Preschool Experience and Progression Status*  
23 Schools in Sample

<table>
<thead>
<tr>
<th>Observed Frequency</th>
<th>Expected Frequency</th>
<th>Chi-Square</th>
<th>X²</th>
<th>DF</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoted 446</td>
<td>496.389</td>
<td>5.212</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>133</td>
<td>129.209</td>
<td>.111</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>681</td>
<td>633.902</td>
<td>3.499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adm. Placed 23</td>
<td>11.831</td>
<td>10.545</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3.076</td>
<td>.377</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>15.039</td>
<td>6.749</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retained 104</td>
<td>64.280</td>
<td>24.544</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>16.715</td>
<td>.441</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>82.005</td>
<td>16.698</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtained Chi-Square</td>
<td>68.176</td>
<td></td>
<td>4</td>
<td>.001**</td>
<td></td>
</tr>
</tbody>
</table>

* Chi-square value significant at p .05.  
** Chi-square value significant at p .01.
**TABLE 14**

**PRESCHOOL EXPERIENCE AND PROGRESSION STATUS BY SCHOOLS SOCIOECONOMIC INDEX**

23 SCHOOLS IN SAMPLE

| Preschool Experience | Promoted | | | | | | Total |
|----------------------|----------|---|---|---|---|---|---|---|
|                      | N | % | N | % | N | % | N | % |
| No Preschool         |   |   |   |   |   |   |   |   |
| Low SES Schools      | 242 | 54 | 13 | 57 | 66 | 63 | 321 | 56 |
| Middle SES Schools   | 168 | 38 | 9  | 39 | 29 | 28 | 206 | 36 |
| High SES Schools     | 36  | 8  | 1  | 4  | 9  | 9  | 46  | 8  |
| Sub-Category         | 446 | 78 | 23 | 4  | 104| 18 | 573 | 100|
| School System Preschool |   |   |   |   |   |   |   |   |
| Low SES Schools      | 98  | 74 | 1  | 50 | 11 | 46 | 110 | 74 |
| Middle SES Schools   | 35  | 26 | 1  | 50 | 3  | 54 | 39  | 26 |
| High SES Schools     | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 0  |
| Sub-Category         | 133 | 89 | 2  | 1  | 14 | 10 | 149 | 100|
| Non-School System Preschool |   |   |   |   |   |   |   |   |
| Low SES Schools      | 227 | 33 | 1  | 20 | 19 | 40 | 247 | 34 |
| Middle SES Schools   | 293 | 43 | 2  | 40 | 17 | 35 | 312 | 42 |
| High SES Schools     | 161 | 24 | 2  | 40 | 12 | 23 | 175 | 24 |
| Sub-Category         | 681 | 93 | 5  | 1  | 45 | 6  | 734 | 100|
| TOTAL                | 1,260| 87 | 30 | 2  | 166| 11 | 1,456| 100|
Summary data for the preschool experience of the group, and progression status for the schools socioeconomic (SES) index were presented in Table 14. In the no preschool group and the school system preschool group, the greater proportion of the students were enrolled in the low SES schools. In the non-school system preschool group, the largest group of students attended the middle SES schools. A chi-square analysis of progression status by the schools SES index for each of the three comparison groups was non significant: Group 1, $X^2(4)=4.028$, p=.402; Group 2, $X^2(2)=1.281$, p=.527; and Group 3, $X^2(4)=2.003$, p=.735. There was no significant difference in the proportion of students promoted, administratively placed, or retained for each group based on the socioeconomic status of the schools.

Table 15 presented summary data for progression status by preschool experience. The comparison by individual school showed that for 10 of the 23 schools, the difference in the percentage of students promoted under the Pupil Progression Policy had close similarity (3 to 7 points) between the no preschool group and the preschool counterparts in the comparison groups within the same school. For the remaining 13 schools, the percentage of students promoted in the preschool groups ranged from 8 to 30 points higher than the percentage of students promoted in the no preschool group within the same school. The analysis of progression status by the socioeconomic index (SES) for the schools (Table 14) indicated that SES was not the variable which influenced the difference among preschool groups.
### Table 15

**Number and Percentage of Students Promoted by Preschool Experience**

23 Schools in Sample

<table>
<thead>
<tr>
<th>Sample School</th>
<th>No Preschool</th>
<th>School System Preschool</th>
<th>Non-School System Preschool</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N</td>
<td>% N</td>
<td>Total N</td>
</tr>
<tr>
<td>01</td>
<td>39</td>
<td>31</td>
<td>79</td>
</tr>
<tr>
<td>02</td>
<td>19</td>
<td>18</td>
<td>95</td>
</tr>
<tr>
<td>03</td>
<td>29</td>
<td>21</td>
<td>72</td>
</tr>
<tr>
<td>04</td>
<td>22</td>
<td>14</td>
<td>64</td>
</tr>
<tr>
<td>05</td>
<td>35</td>
<td>23</td>
<td>66</td>
</tr>
<tr>
<td>06</td>
<td>13</td>
<td>13</td>
<td>100</td>
</tr>
<tr>
<td>07</td>
<td>22</td>
<td>20</td>
<td>91</td>
</tr>
<tr>
<td>08</td>
<td>42</td>
<td>35</td>
<td>83</td>
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<tr>
<td>09</td>
<td>42</td>
<td>27</td>
<td>64</td>
</tr>
<tr>
<td>10</td>
<td>40</td>
<td>28</td>
<td>70</td>
</tr>
<tr>
<td>11</td>
<td>18</td>
<td>12</td>
<td>67</td>
</tr>
<tr>
<td>12</td>
<td>18</td>
<td>13</td>
<td>72</td>
</tr>
<tr>
<td>13</td>
<td>24</td>
<td>14</td>
<td>58</td>
</tr>
<tr>
<td>14</td>
<td>25</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>15</td>
<td>23</td>
<td>21</td>
<td>91</td>
</tr>
<tr>
<td>16</td>
<td>32</td>
<td>26</td>
<td>81</td>
</tr>
<tr>
<td>17</td>
<td>28</td>
<td>24</td>
<td>86</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
<td>17</td>
<td>94</td>
</tr>
<tr>
<td>19</td>
<td>38</td>
<td>33</td>
<td>87</td>
</tr>
<tr>
<td>20</td>
<td>9</td>
<td>6</td>
<td>67</td>
</tr>
<tr>
<td>21</td>
<td>18</td>
<td>18</td>
<td>100</td>
</tr>
<tr>
<td>22</td>
<td>5</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>23</td>
<td>14</td>
<td>7</td>
<td>50</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>573</strong></td>
<td><strong>446</strong></td>
<td><strong>78</strong></td>
</tr>
</tbody>
</table>
The analysis of variance was used to test for differences among comparison groups on the California Achievement Tests scores for reading and mathematics (Table 16). The obtained F value for reading scores exceeded the critical value at the .05 level of significance. The obtained F value for mathematics scores exceeded the critical value at the .05 level of significance. The null hypothesis of no difference among groups was rejected. The researcher concluded that there was a significant difference among the preschool groups on the California Achievement Tests scores for reading and mathematics. Preschool experience had a significant influence on the reading and mathematics achievement test scores at post assessment for the total sample of students in the 23 schools.

The overall average achievement test score for mathematics (71.73) was higher than the average score for reading (67.40). Students in the non-school system preschool group had the highest overall average test scores for reading and mathematics. The school system preschool group attained the next highest group averages, and the no preschool group had the lowest overall average achievement test scores for reading and mathematics.

There was a significant relationship between the SES of the school and the reading and mathematics achievement test scores and there was a significant relationship between preschool experience and reading and mathematics achievement test scores. However, the evaluation of the interaction between the effects of SES and preschool experience on the reading and mathematics achievement test scores was non significant.
TABLE 16
ANALYSIS OF VARIANCE
Preschool Experience and Reading and Mathematics Scores on The California Achievement Tests
23 Schools In Sample

READING

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>85783.150</td>
<td>4</td>
<td>21445.788</td>
<td>26.941</td>
<td>.000</td>
</tr>
<tr>
<td>SES</td>
<td>18507.752</td>
<td>2</td>
<td>9253.876</td>
<td>11.625</td>
<td>.000</td>
</tr>
<tr>
<td>Preschool Exp</td>
<td>49383.888</td>
<td>2</td>
<td>24691.944</td>
<td>31.019</td>
<td>.000</td>
</tr>
<tr>
<td>2-Way Interact SES - Preschool</td>
<td>1009.314</td>
<td>4</td>
<td>252.328</td>
<td>.031</td>
<td>.867</td>
</tr>
<tr>
<td>Explained</td>
<td>86792.464</td>
<td>8</td>
<td>10849.058</td>
<td>13.629</td>
<td>.000</td>
</tr>
</tbody>
</table>

MATHEMATICS

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>37776.265</td>
<td>4</td>
<td>9444.066</td>
<td>13.018</td>
<td>.000</td>
</tr>
<tr>
<td>SES</td>
<td>5659.934</td>
<td>2</td>
<td>2829.967</td>
<td>3.901</td>
<td>.020</td>
</tr>
<tr>
<td>Preschool Exp</td>
<td>24801.916</td>
<td>2</td>
<td>12400.958</td>
<td>17.094</td>
<td>.000</td>
</tr>
<tr>
<td>2-Way Interact SES - Preschool</td>
<td>2665.992</td>
<td>4</td>
<td>666.498</td>
<td>919</td>
<td>.452</td>
</tr>
<tr>
<td>Explained</td>
<td>40442.992</td>
<td>8</td>
<td>5055.282</td>
<td>6.968</td>
<td>.000</td>
</tr>
</tbody>
</table>

* Significant at p .05
** Significant at p .01
## Analysis of Variance

**Table of Group Means**

**California Achievement Tests**

### Reading

<table>
<thead>
<tr>
<th>Source</th>
<th>Low</th>
<th>Middle</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Population</strong></td>
<td>67.40</td>
<td>72.08</td>
<td>72.08</td>
</tr>
<tr>
<td>(1,389)</td>
<td>(632)</td>
<td>(579)</td>
<td>(178)</td>
</tr>
<tr>
<td><strong>SES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>61.80</td>
<td></td>
<td>72.08</td>
</tr>
<tr>
<td>(632)</td>
<td></td>
<td></td>
<td>(178)</td>
</tr>
<tr>
<td>Middle</td>
<td></td>
<td>72.08</td>
<td></td>
</tr>
<tr>
<td>(579)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
<td>72.08</td>
</tr>
<tr>
<td>(178)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Preschool Experience</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No</strong></td>
<td>59.80</td>
<td>64.26</td>
<td>74.42</td>
</tr>
<tr>
<td>(561)</td>
<td>(152)</td>
<td></td>
<td>(676)</td>
</tr>
<tr>
<td><strong>School System</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>61.29</td>
<td></td>
<td>68.46</td>
</tr>
<tr>
<td>(98)</td>
<td></td>
<td></td>
<td>(221)</td>
</tr>
<tr>
<td><strong>Middle</strong></td>
<td>69.49</td>
<td></td>
<td>78.14</td>
</tr>
<tr>
<td>(53)</td>
<td></td>
<td></td>
<td>(322)</td>
</tr>
<tr>
<td><strong>High</strong></td>
<td>78.00</td>
<td></td>
<td>75.34</td>
</tr>
<tr>
<td>(1)</td>
<td></td>
<td></td>
<td>(133)</td>
</tr>
<tr>
<td><strong>Non-School System</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Middle</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## ANALYSIS OF VARIANCE

**TABLE OF GROUP MEANS**

**CALIFORNIA ACHIEVEMENT TESTS**

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>Total Population</th>
<th>Low</th>
<th>Middle</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>71.73 (1,389)</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SES</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>68.51 (632)</td>
<td>73.79 (579)</td>
<td>76.45 (178)</td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>68.37 (204)</td>
<td>70.38 (53)</td>
<td>77.80 (322)</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>73.27 (44)</td>
<td>94.00 (1)</td>
<td>77.37 (133)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Preschool Experience</th>
<th>No</th>
<th>School System</th>
<th>Non-School System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>66.11 (561)</td>
<td>71.95 (152)</td>
<td>76.35 (676)</td>
</tr>
<tr>
<td>Middle</td>
<td>68.37 (204)</td>
<td>70.38 (53)</td>
<td>77.80 (322)</td>
</tr>
<tr>
<td>High</td>
<td>73.27 (44)</td>
<td>94.00 (1)</td>
<td>77.37 (133)</td>
</tr>
</tbody>
</table>
CHAPTER V

DISCUSSION

In order to address the research question of which variables in the alternative child care settings operated favorably on kindergarten achievement, the study used the profile of the performance for total school system kindergarten students for prereadiness. From system schools, a random sample of 23 schools, stratified by the schools SES index was selected. From this subset, parents of 573 kindergarten students with no significant preschool experience were asked to respond to a child care questionnaire. One hundred and ninety-six (196, 34 percent) completed questionnaires were returned.

The review of the literature indicated that American child care takes many forms in order to meet the divergent needs of families. In single-parent families or when both parents in dual-parent families work outside of the home, a relative or someone outside of the family is needed to provide child care for preschool children. The scope of the contemporary problem of child care can best be understood when viewed in its historical context, with rudiments from the Elizabethan Era of 1558. The contemporary issues related to the care and welfare of children are meshed with the concerns of educators for providing quality basic education to students. The study has significance for both social work and educational practices.
The research priorities for the study were set forth in three research questions, and the research contentions were tested in three hypotheses.

The rationale for the study was to generate research findings which may enable the public schools to recognize and support the strengths which the preschool students from various child care delivery systems bring to the school setting, and develop learning environments appropriate for the different development levels and learning styles.

Conclusions

The general descriptive characteristics of the alternative child care arrangements indicated that most of the families employed child care arrangements in the child's home with the parent(s) or guardian(s) as the primary caregivers. In the absence of the parents and guardians, several combinations of caregiver arrangements utilized other family members, babysitters or housekeepers, friends or neighbors, drop-in or part-time care.

Children in arrangements outside of the parent-child bond were usually age 3 through 5, attended 5 days per week, from 7 to 9 hours per day, from 6 months to a year or more, and at a usual cost of 21 to 40 dollars per week for 1 or more children. The arrangements between the family and caregivers were informal in nature and outside of many of the practices generally adhered to in licensed, regulated child care facilities. Some of the arrangements were at no cost. Families were generally very much or entirely satisfied with the child care arrangements, and a small group indicated that they were less satisfied and would have preferred another type of child care arrangement. Families used child care
arrangements with persons other than the parents primarily because of employment.

On specified measures of school achievement, the level of achievement for students who received no formal preschool experience did not differ significantly within the group for students who received alternative child care arrangements in the child's home as compared to students who received child care away from the child's home. The null hypothesis of no difference within the no preschool group was not rejected for preassessment measures of achievement.

Student performance on the kindergarten readiness assessment, Ready Steps Language Survey, showed similarities in the scoring pattern. Students from in-home care and away-from-home care had lower preassessment scores for skill No. 3, instructional language; skill No. 5, oral language; and skill No. 7, sequencing.

The presence of recommended basic items of child care equipment, materials, and furnishings in the in-home and away-from-home child care settings had a significant association with students performance on specific skill areas on the kindergarten readiness assessment, Ready Steps Language Survey. The presence of furnishings, manipulatives for fine motor development, materials for visual perception, and art and sensory perception, dramatic and social play, and verbal communication were most often associated with high performance on skill No. 1, auditory discrimination; skill No. 3, instructional language; skill No. 5, oral language development; skill No. 7, sequencing; and skill No. 8, categorizing.
The profiles of the educational level of parents were similar for mothers and fathers in that the majority of parents attained a level of education beyond high school. Three percent of the fathers indicated the doctorate level of education. The performance of students on the kindergarten readiness assessment, Ready Steps Language Survey, was highest above the level of high school graduate and tended to increase as education increased. The association of students performance and education of the parents was significant in favor of the mother. The skills associated with the education of the parents were skill No. 3, instructional language; skill No. 5, oral language development; and skill No. 6, sequencing.

For the analysis of student performance within the no preschool group on the kindergarten readiness assessment and the SES level of the schools, significance was obtained for the same skill areas discussed in the previous analyses: skill No. 3, instructional language; skill No. 7, sequencing; and skill No. 9, using oral context.

Hypothesis testing for the in-home child care group and the away-from-home child care group on the post assessment achievement measures showed no significant difference for the reading and mathematics California Achievement Tests scores, and no significant difference for the proportion of students promoted, administratively placed and retained at the end of the school year. Group summary data showed that the percentage of students retained were higher for the in-home child care group when compared to the away-from-home child care group. Under the local school system's Pupil Progression Policy, the retained
students failed to meet progression requirements because of non-mastery of reading and mathematics minimum skills and/or non-completion of the reading readiness basal, Getting Ready To Read.

In explaining the combination of variables which contributed to the educational dimension or quality of the learning environment in the child care setting, promising findings were obtained from the chi-square analysis of the distributions of kindergarten scores and several variables—specific items of equipment, materials, and furnishings in the child care setting, the SES index for the schools, and the educational level of the parents showed significance in favor of the education of the mother.

On specified measures of school achievement, there was a significant difference in students achievement among the three comparison groups (no preschool group, school system preschool group, and non-school system preschool group), on the post assessment measures under the local school system's Pupil Progression Policy.

The chi-square analysis for progression status for the three comparison groups showed a significant association between the preschool experience of the three comparison groups and the frequency of kindergarten students who were promoted, administratively placed and retained under the local school system's Pupil Progression Policy. The results were non significant for each group when analyzed by the socioeconomic index of the schools.

Under the local school system's Pupil Progression Policy, the levels of achievement were defined in terms of the extent to which students demonstrated
satisfactory performance on the indicators required for progression to the next grade level. The indicators were the reading and mathematics minimum skills and the reading readiness skills contained in the basal, Getting Ready To Read.

Students who satisfactorily met the progression requirements were promoted to the first grade. Students who did not satisfactorily meet the progression requirements were retained for the second year in kindergarten. Students who were deemed by the teacher to have the potentials for success in first grade, but who failed to meet the promotional requirements because of extenuating circumstances (illness, English as a second language, etc.) were administratively placed "at risk" in the first grade. For administratively placed students, it was anticipated that with additional help (remedial, computer-assisted instruction, etc.), the students would have success in first grade.

Differences among the comparison groups were more discernible at preassessment than post assessment. Group differences in preassessment scores on the Ready Steps Language Survey favored the preschool group when compared to the no preschool group. At post assessment, group differences as measured on the California Achievement Tests and the frequency of students promoted, administratively placed and retained under the local system's Pupil Progression Policy were significant for the total group, but showed variations when examined by individual schools.

**Recommendations**

The findings of the study have relevance for educational practices when interpreted in the context of the general descriptive characteristics, the pattern
of performance and the achievement expectations for the 1986-87 kindergarten class in the local school system. In order to mediate the educational effects and costs of student retention, it is recommended that the local school system investigate the feasibility of an educational assistance program for developmentally delayed or low performing students when identified at preassessment. This special program could take the form of a pre-first grade, half-step promotion or a special readiness class for kindergarten students unable to meet the promotional requirements during the first year in kindergarten.

The findings suggest that a sizeable number of parents were not in the workforce and provided virtually full-time child care during the child's preschool years. It would be a worthwhile effort on the part of the local school system to intensify the communications network with the parents of the potential kindergarten students, similarly to the information sharing network with day care centers and group-based programs in the conventional child care delivery system.

The study targeted the parents of children who had no significant preschool experience prior to entering kindergarten. Even though the word "day care" was avoided, some parents seemed not to consider what they did with their children at home as "child care." Comments alluded to the notion that "my child did not have child care .... I cared for him at home." The phrase "child care" was interpreted as meaning "day care" or care by someone other than the parents. Generally, parents who cared for their children at home expressed strong feelings about their preference and satisfaction with having been the child's full-time, primary caregiver during the preschool years (Appendix A).
The results of the study allowed for the identification of some variables in the alternative child care arrangements which would help public schools plan more effectively to serve both the population of students who attended formal preschool programs as well as those who were from the alternative child care delivery system. While students with preschool experience performed on the average more successfully on the Ready Steps Language Survey skills at preassessment than students with no preschool, the pattern of high and low performance occurred for the same skills. Both groups indicated instructional needs for instructional language, oral language development, and sequencing. From the large group of students with no preschool experience, a subgroup entered school functioning equally as well as their day care counterparts within the same schools; and the majority of the students compared favorably in achievement to their day care counterparts within the same schools by the end of the school year.

When attention is focused on the findings of the study, several areas seem worthy of further research. The findings of the study suggested that when children were not in the conventional types of group-based child care arrangements away from home, they were in the full-time care of the parent(s) or guardian(s). This finding seemed contrary to the literature which documented the great need for child care because of increased labor market participation of women. This finding was influenced by the large percentage of non-working parents who returned the questionnaire. The researcher's pre study notion was that families of students in the local school system were creating a variety of
alternative child care arrangements outside of the parent-child bond. This assumption was substantiated for the group of families who used child care away from child's home and care in child's home by someone other than the parent(s) or guardian(s).

The areas of interest to the researcher for further study are the classroom settings for kindergarten students and the attitudes and instructional practices of the classroom teachers toward kindergarten students with no preschool experience as compared to students with preschool experience. The researcher is interested in determining the classroom-related variables which allowed students with no preschool experience to match the achievement of students with preschool experience at the end of the kindergarten year in some schools when contrasted with the wide differences in achievement between the preschool and no preschool groups which occurred at other schools of similar socioeconomic status.

The findings of the study have a relationship to the existing body of knowledge in several areas. The child care alternatives and options reported in this study were similar to those reported by Honig (1985), Emlen (1972), and O'Connell, et. al. (1983).

Factors associated with the furnishings and equipment in the child care environment had a relationship to the findings of Prescott and David (1977) on the effects of the physical environments in child care systems.

Wilson and Reichmuth (1984) reported on the predictive accuracy of preschool screening instruments which are often used to make decisions about children. A preschool screening instrument was one of the performance indicators included in this study.
The comparative analysis of cognitive performance between the group of students with preschool experience and students with no preschool experience showed results in favor of the preschool group. This finding was reported by Snow (1985), Hertz (1977), Goldring and Presbrey (1984) and other studies on the effects of preschool intervention programs on success in school.
APPENDICES
In Child's Home

1. General expressions of the value or satisfaction with the child care arrangement.

My daughter received all of her child care at home ... and it was a wonderful and loving experience for all of us to prepare her for enrolling in school ... and it has not stopped.

My son was never in day care. I feel he is a better and happier child because he spent that time at home. My first child did go to day care, she did not always enjoy the other children.

Mother provided from birth, every day, 24 hours, 7 days a week. He is eager to know more love and to work with his hands.

I feel thankful that I was able to stay home with my child. I believe that I was able to provide the best early learning experience for my child.

I was entirely satisfied ... I kept my own child.

I am a single parent (mother). My child went through the WIN Program for 3 or 4 months while I was in job training. Now my child is in school. They take tests ... learning to count to 30 and learning alphabets, address, phone number, birthdate, city and state ... and lots more for a child in kindergarten to learn.

Child attended preschool (for few months) ... I've not really considered it child care since I am a non-working mother and the father is home 4 days a week.

Children need lots of attention and love. Most of this should come from the parent. It makes the child feel more secure. Parents should become more involved in their child's learning process. This makes the child want to learn even more. You have to be very patient. Don't pressure the child to meet your standards. Let them progress at their own pace. Make learning fun for them and they will want to learn.

Preferred child to attend day care center. They attended Summer Bible School where they did some cutting, coloring, etc.

One advantage of keeping children in their home is the opportunity to shape values and beliefs before sending them out among so many diversified cultures, beliefs, etc.

I wish I could have them in a day care center and better arrangements for outdoor playing.

Child care is a constant headache, in home as well as out of the home. Had five different sitters last year.

I feel that if the parents can't keep the child, they should be put in a day care because it prepares them for school more so than a family member.
II. **General interpretation of child care as meaning day care or care away from child's home.**

I did not need child care. I kept my own daughter at home. I do not have but one child. I was teaching my child before she started school. She is in school, kindergarten.

Don't need child care.

I am the person ... I am his mother ... I have kept him at home with me.

Did not need child care. Very much satisfied because our child stayed home with us until kindergarten. All the education she learned before was taught by her mom and dad. Right now her first year in kindergarten is going just GREAT! Hopefully, she'll be gifted like her brother.

I don't have comments because my child has never been in child care.

Child care is necessary for women who have to work to support themselves and their children. This survey is important so you can set rules for the city and State child care centers.

No comments. Child has never been in child care. My younger sister, age 26, has always kept my children for me to work.

III. **General expressions of needs, suggestions and other comments.**

Child care at home ... need after school program for working mothers so kids won't come home alone.

I think each parent should question and ask for references when putting someone in care of their child.

Our predicament was such that our child was cared for both outside of the home and in the home. A scarcity of caregivers, day care homes, father, aunt, in-laws ... Child was cared for some times outside of the home and other times at home. I would have preferred not to have the changes.

I could not afford to send ... to day care, and his birthdate was late for kindergarten.

Child care is important because if you treat a child with proper care it helps them to establish a better role for himself in life. Child Care Survey helps teachers understand how well the parents know the child.

It is too expensive to put kids in day care. Child was at home 24 hours everyday.

Grandmother cared for child in family's home. I wish child care was around for my older daughter 10 years old.

I had to pay for the entire week even if I only wanted part-time care, but I could understand the position of the day care in that they had to have that policy. At five years old I would have sent my child to a day care program part-time, even if I was at home.
I cannot help feeling sorry for the infants and very small children who spend the entire day in a day care center.

IV. **General reactions to the Child Care Survey.**

I would like to have more information on this survey, because I didn't understand what it was really talking about. I kept child at home.

I did not understand what this (child care survey) is for.

I think it is a good idea to find out what parents go through with their kids and what they can provide for the child before school... I also think better care is in the home, if there are two parents... until preschool.

I think good child care is very important for your child before school and after, and the child care survey is an excellent idea.

I think the survey is a good idea. I don't too much trust child care away from home.

I think surveys are good. You have to ask questions to find answers to better help the children. Child care is good, but very expensive and would be difficult. I think for most families to provide financially. It definitely drains money from household living and most families whose parents need to work have no choice.

The survey is good for the School System to find out more about the child personally. I hope that I helped all the small children of today for they are adults of tomorrow.

I think it is very good. I care about the survey.

The survey gave me good suggestions on equipping my preschooler's play area at home to enhance their learning and developmental skills. Survey question #15 helped me to realize the importance of getting these facts from the preschool in lieu of assuming all standards are met due to the reputation of the school for having a good program.

**Away From Child's Home**

I. **General expressions of the value or satisfaction with the child care arrangement.**

Child care is needed at an age before the child becomes one so that the mother can go to work to earn a living for the family. Most families rely on the extra income of the mother.

My child was at (program). I felt that he did not learn enough there.

I would like to say that in her child care days, I would never work more than six months at a time, then stay home. I was still married and my spouse helped.

While in the military... attended preschool for 2 hours daily. Also used babysitters and housekeepers.

Had child care for three months with babysitters before kindergarten. would have preferred a nursery.
I would like a copy of the outcome of this survey. I would have put my own son in a nursery, but I was very happy with my babysitter. So, I decided to teach him myself which worked out fine because he is up to par with his classmates.

My daughter stayed with her grandmother during the day while her father and I worked. I have no complaints with her child care.

My babysitter is my sister and I am very much satisfied with her. She is very relaxed with keeping them. She helps them with their school work and I can depend on her all of the time.

Cared for my other family members. Wish we had put her into an early learning center.

Was cared for by friend. I should have enrolled her in a day care center.

As long as the child is safe, happy, secure place, and the child is happy and well provided for ... I'm happy.

II. General expressions of needs, suggestions and other comments.

Child care fields should be regulated by the city, state, or government when parents must work to support their families. Parents should not be charged when a child is unable to attend (the program) for whatever reason.

Need more inspection of day care centers to enforce standards.

Since I started working at night, I really do need child care. I sometimes work 16 to 20 hours a ?. The weekend is the only time I might see them, and then that's sometimes. I guess you can say that child care is like having a second mother.

IV. General reactions to child care survey.

I think that it's good to find out how other kids are learning, so there can be help for other kids. All need a good education, and it helps to get a year's learning before school.

I hope the results will be used to provide reliable, affordable and child-enriching day care by the private sector. Parents from our present - their children are our future.

As a non-working mother that needs child care, it (the survey) didn't address itself to child care on a regular but drop-in basis.

I feel that this survey is good public relations to get an understanding of how our children are properly cared for.
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INDICATES A Chi-Square value significant at p < .05

Y = Yes, the item was present in the child care setting
N = No, the item was not present in the child care setting
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<thead>
<tr>
<th>Equipment and Materials in Child Care Setting</th>
<th>Skill 1</th>
<th>Skill 2</th>
<th>Skill 3</th>
<th>Skill 4</th>
<th>Skill 5</th>
<th>Skill 6</th>
<th>Skill 7</th>
<th>Skill 8</th>
<th>Skill 9</th>
<th>Skill 10</th>
<th>Percent of Students Mastering Skill</th>
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<td>Child-size tables, chairs, or furnishings</td>
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<td>Y</td>
<td>Y</td>
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<td>Blocks, balls, hoops, puzzles, or peg board and pegs</td>
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<td>Lego, tinker toys, or beads and string</td>
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<td>Transportation toys (truck, train, airplane, or wagon)</td>
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<td>Paint, crayons, clay, or glue</td>
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<td>Pencils, paint brushes, or child-size scissors</td>
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<td>Paper for writing, drawing, painting, or cutting</td>
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<td>Dolls, doll clothing, dress-up clothing, or costumes</td>
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<td>Housekeeping toys (stove, sink, refrigerator, pots, pans, broom, mop, or dust pan)</td>
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<td>Picture books, story books, or magazines</td>
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<td>Puppets, flannel board, story or picture cut-outs</td>
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</tr>
<tr>
<td>Record player, records, or rhythm instruments</td>
<td>95, 83, 97, 96, 74, 67, 88, 96, 78, 82, 89, 71, 70, 50, 97, 89, 93, 82, 100, 89</td>
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<tr>
<td>Storytime, finger play, or singing</td>
<td>91, 91, 98, 93, 79, 59, 89, 92, 79, 80, 88, 75, 71, 52, 97, 91, 88, 93, 97, 93</td>
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<tr>
<td>Sandbox, water table, sand or water toys</td>
<td>100, 88, 100, 95, 81, 68, 90, 90, 69, 84, 88, 82, 81, 56, 100, 92, 100, 87, 100, 97</td>
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<tr>
<td>Plants, pet fish, or bird</td>
<td>96, 88, 95, 98, 75, 69, 89, 92, 87, 74, 87, 81, 74, 50, 100, 91, 100, 84, 100, 94</td>
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<tr>
<td>Television or radio</td>
<td>92, 88, 97, 95, 73, 63, 88, 100, 83, 57, 83, 86, 66, 63, 94, 100, 94, 71, 98, 88</td>
<td></td>
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<tr>
<td>Fenced outdoor play area with swing, slide, climbing gym, or riding toys</td>
<td>91, 92, 98, 95, 72, 69, 88, 93, 76, 92, 86, 75, 69, 62, 98, 83, 91, 92, 98, 93</td>
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</tr>
<tr>
<td>Beds, cots, or mats, and cover for rest and sleep</td>
<td>92, 86, 97, 95, 71, 71, 87, 100, 81, 67, 83, 83, 68, 90, 86, 90, 88, 93, 77</td>
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</tbody>
</table>

*INDICATES A Chi-Square value significant at p .05

Y = Yes, the item was present in the child care setting
THE PUPIL PROGRESSION POLICY

MINIMUM SKILLS
MATHEMATICS

The student will demonstrate mastery of the following minimum mathematics skills for kindergarten as determined by indicators of mastery and teacher evaluation.

1. Indicate which of two objects is larger and which is smaller.
2. Locate objects according to position: inside, outside, above, below, left, right.
3. Indicate which of two groups has more or fewer objects.
4. Recognize the numeral 1 and identify which of two groups of objects has one more or one fewer.
5. Solve a problem by classifying objects.
6. Identify groups of two, three, four, and five objects and recognize the numerals 1, 2, 3, 4, and 5.
7. Identify a set of no objects and recognize 0 as its corresponding numeral.
8. Identify groups of six, seven, and eight objects and the corresponding numerals.
9. Identify groups of nine and ten objects and recognize the corresponding numerals.
10. Recognize the following shapes: circles, squares, and triangles.
11. Recognize the passage of time by indicating which of three events takes longer to occur.

MINIMUM SKILLS
READING

The student will demonstrate mastery of the following minimum reading skills for kindergarten as determined by indicators of mastery and teacher evaluation. The student's performance in Gates' Reading Rater (based on the Test of Basic Reading Skills Survey Form and teacher's professional judgment) will be at a level which indicates that the student is ready to begin the first pre-primer

1. Distinguish differences in the beginning sounds of words.
2. Listen to and follow one-step or multi-step oral directions.
3. Understand the instructional language commonly used in kindergarten.
4. Name pictured objects.
5. Dictate meaningful information using pictures.
6. Retell significant details after listening to a story.
7. Place events in proper sequence using a series of pictures.
8. Categorize pictured objects.
9. Complete a sentence by supplying a word that makes sense.
10. Recognize similarities and differences in capital and lower-case letters.
### READY STEPS LANGUAGE SURVEY

Hillerich, Robert L. and Johnson, Timothy G. (1986)

<table>
<thead>
<tr>
<th>TEST</th>
<th>SKILL AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AUDITORY DISCRIMINATION</td>
<td>. . . hear the differences between beginning sounds (coat or goat?)</td>
</tr>
<tr>
<td>2. FOLLOWING ORAL DIRECTIONS</td>
<td>. . . perform simple tasks involving one-, two-, and three-step directions?</td>
</tr>
<tr>
<td>3. INSTRUCTIONAL LANGUAGE</td>
<td>. . . Understand instructional words commonly used in kindergarten and first-grade reading programs (words such as on, under, above, in)?</td>
</tr>
<tr>
<td>4. GENERAL VOCABULARY</td>
<td>. . . Name common objects typically pictured in a pre-reading program?</td>
</tr>
<tr>
<td>5. ORAL LANGUAGE DEVELOPMENT</td>
<td>. . . express ideas in sentences that include more than a noun and a verb?</td>
</tr>
<tr>
<td>6. LISTENING COMPREHENSION</td>
<td>. . . listen to a selection and recall significant details?</td>
</tr>
<tr>
<td>7. SEQUENCING</td>
<td>. . . recognize sequence of events in a pictured story?</td>
</tr>
<tr>
<td>8. CATEGORIZING</td>
<td>. . . sort or classify things that are similar in some way?</td>
</tr>
<tr>
<td>9. USING ORAL CONTEXT</td>
<td>. . . supply a missing word when oral context is given?</td>
</tr>
<tr>
<td>10. LETTER FORM DISCRIMINATION</td>
<td>. . . notice minor differences between letter forms — both lower-case and capitals?</td>
</tr>
</tbody>
</table>
Dear Parents of Kindergarten Students:

Children in the kindergarten program of the school system have had many different learning experiences before they entered school.

We invite you to participate in a valuable study in which you will be asked to supply information about the child care and the preschool learning experiences for your kindergarten child.

Many families need child care during the day. Some families enroll their children in day care centers; some children are cared for in their own homes or in the homes of other families.

The enclosed Child Care Questionnaire is for the purpose of collecting information about the kinds of child care arrangements which parents made for their children, during the day on weekdays, the year before the child entered kindergarten.

We have enclosed a pre-addressed, stamped envelope and ask that you return the completed Child Care Questionnaire within the next week.

Confidentiality in research is important to us, and at no time will the questionnaire be identified by the name of the family, child, or the person providing the child care.

Recommendations from the study will be given to the school system for use in planning the kindergarten program. If you have questions, please call Emma Popwell at 827-8098.

Sincerely,

Emma P. Popwell

Enclosures
Dear Parents of Kindergarten Students:

Several weeks ago, we mailed a Child Care Questionnaire to parents of kindergarten students.

The purpose of the Child Care Questionnaire is to ask parents to tell us about the child care and the preschool learning experiences which were provided for their children before they entered kindergarten.

We invite you to participate by filling out the enclosed Child Care Survey.

We have enclosed a pre-addressed, stamped envelope and ask that you return the completed Child Care Questionnaire within the next week.

Recommendations from the study will be given to the school system for use in planning the kindergarten program. If you have questions, please call Emma Popwell at 827-8098.

Sincerely,

Emma P. Popwell

Enclosures
INSTRUCTIONS:

Describe the child care arrangement made for your child, during the day on weekdays, the year before child entered kindergarten. Please use a check mark ( ) for your answer.

PART A -- Answer all questions 1 through 7 which apply.

1. Where was child care provided most of the time?
   ____ In child's home
   ____ Away from child's home

2. Who provided child care most of the time?
   ____ Parent(s) or guardian(s)
   ____ Other family member
   ____ Babysitter or housekeeper
   ____ Friend or neighbor
   ____ In the home of another family
   ____ Day care provided by parent's work place
   ____ Other (please state) __________________________________________________________________________

3. How many children were at the place of child care?
   ____ My kindergarten child, only
   ____ 2 to 3 children
   ____ 4 to 5 children
   ____ 6 to 7 children
   ____ 8 to 9 children
   ____ 10 or more children

4. What were the ages of the children at the place of child care?
   ____ Less than 1 year
   ____ 1 to 2 years
   ____ 3 to 5 years
   ____ 6 years or older

5. How many adults, 18 years or older, cared for the children at the place of child care?
   ____ 1 adult
   ____ 2 adults
   ____ 3 adults
   ____ 4 adults
   ____ 5 or more adults
6. Which of the following equipment and materials were at the place of child care?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child-size tables, chairs, or furnishings</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Blocks, balls, hoops, puzzles, or peg board and pegs</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Lego, tinker toys, or beads and string</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Transportation toys (truck, train, airplane, or wagon)</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Paint, crayons, clay, or glue</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Pencils, paint brushes, or child-size scissors</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Paper for writing, drawing, painting, or cutting</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Dolls, doll clothing, dress-up clothing, or costumes</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Housekeeping toys (stove, sink, refrigerator, pots, pans, broom, mop, or dust pan)</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Picture books, story books, or magazines</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Puppets, flannel board, story or picture cut-outs</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Record player, records, or rhythm instruments</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Storytime, finger play, or singing</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Sandbox, water table, sand or water toys</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Plants, pet fish, or bird</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Television or radio</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Fenced outdoor play area with swing, slide, climbing gym, or riding toys</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Beds, cots, or mats, and cover for rest and sleep</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
7. How satisfied, overall, were you with the child care arrangement for your child?
   - Entirely satisfied
   - Very much satisfied
   - Satisfied
   - Somewhat satisfied
   - Not satisfied
   - Would have preferred a different arrangement for child care. (Please explain.)

   PART B — If child care was provided by someone other than the parent(s) or guardian(s), please answer questions 8 through 15.

8. Why was child care needed?
   - Employment of parent(s) or guardian(s)
   - School or job training of parent(s) or guardian(s)
   - Illness, disability, or family problem
   - Education of the child
   - Other (please state)

9. How many days per week was child care provided?
   - 1 to 2 days
   - 3 to 4 days
   - 5 days
   - More than 5 days
   - Other (please state)

10. How many hours per day was child care provided?
    - Between 1 and 3 hours
    - Between 3 and 5 hours
    - Between 5 and 7 hours
    - Between 7 and 9 hours
    - More than 9 hours
    - Other (please state)

11. How many months was child care provided?
    - Less than 6 months
    - 6 months to a year
    - More than 1 year
    - Other (please state)
12. Which meals were served to your child while in child care?

- ___ Breakfast
- ___ Morning snack
- ___ Lunch
- ___ Afternoon snack
- ___ Dinner
- ___ None

13. Who provided transportation to and from child care most of the time?

- ___ Parent(s) or guardian(s)
- ___ Other family member
- ___ Child care person or program
- ___ Other (please state) __________________________

14. What was the usual cost per week for child care?

- ___ $1 to $10 per week
- ___ $11 to $20 per week
- ___ $21 to $30 per week
- ___ $31 to $40 per week
- ___ More than $40 per week
- ___ No cost
- ___ Other (please state) __________________________

15. Which of the following statements best describe the person(s) who usually cared for your child? Check Yes or No to each statement.

The person who cared for my child most of the time,

- ___ Yes  No  Asked me for information to fill out an enrollment or registration form
- ___ Yes  No  Asked me for a health statement for my child
- ___ Yes  No  Discussed with me the daily schedule for my child
- ___ Yes  No  Discussed with me what was to be done for illness or emergency for my child
- ___ Yes  No  Discussed with me how my child was to be disciplined
- ___ Yes  No  Discussed with me the things that my child was learning
- ___ Yes  No  Gave me activities to do with my child at home
- ___ Yes  No  Discussed with me his/her training or experience in child care
- ___ Yes  No  Had available for me to see a current license or certificate to operate a child care service

EP/5-87
**NOTE TO PARENT(S) OR GUARDIAN(S):**

Thank you for the information that you have given on the Child Care Survey. Confidentiality in research is important to us, and at no time will the survey form be identified by the name of the family, child, day care program, or the person providing the child care.

The following information would help us determine how many families are similar.

16. **Comments**

What comments would you like to make about child care and the Child Care Survey?


17. **Which best describes the highest level of education you have completed?**

<table>
<thead>
<tr>
<th>For Mother/Guardian</th>
<th>For Father/Guardian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary school</td>
<td>Elementary school</td>
</tr>
<tr>
<td>Some high school</td>
<td>Some high school</td>
</tr>
<tr>
<td>High school graduate</td>
<td>High school graduate</td>
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<tr>
<td>Trade or vocational school</td>
<td>Trade or vocational school</td>
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<tr>
<td>Some college</td>
<td>Some college</td>
</tr>
<tr>
<td>College graduate</td>
<td>College graduate</td>
</tr>
<tr>
<td>Graduate work beyond college</td>
<td>Graduate work beyond college</td>
</tr>
<tr>
<td>Doctorate</td>
<td>Doctorate</td>
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</table>

18. **In which category does your age fall?**

<table>
<thead>
<tr>
<th>For Mother/Guardian</th>
<th>For Father/Guardian</th>
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</thead>
<tbody>
<tr>
<td>Under 21</td>
<td>Under 21</td>
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<tr>
<td>22 to 25</td>
<td>22 to 25</td>
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<tr>
<td>26 to 30</td>
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<td>31 to 35</td>
<td>31 to 35</td>
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<td>36 to 40</td>
<td>36 to 40</td>
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<td>41 to 45</td>
<td>41 to 45</td>
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<tr>
<td>46 to 50</td>
<td>46 to 50</td>
</tr>
<tr>
<td>Over 50</td>
<td>Over 50</td>
</tr>
</tbody>
</table>


Gallup, George H. The Twelfth Annual Gallup Poll of the Public's Attitudes Toward the Public Schools. September 1980.


Georgia Department of Human Resources. Minimum Standards for Day Care in Georgia, 1974.


Massachusetts: Illinois University, Urbana Center for the Study of Reading, 1983.


Socialization Patterns Within the Black Family. Research In Education (May 1976).


Snow, Charles W. "Which Is Better for Young Children -- Family Day Care or Center Care?" Paper presented at the annual meeting of the National Association for the Education of Young Children, New Orleans, November 1985.


VITA
VITA

EMMA JEAN PACE POPWELL

ADDRESS: 599 Fielding Lane, S. W.
Atlanta, Georgia 30311

PROFESSION: Social Worker

EDUCATION:
B. S., School of Arts and Sciences
Tuskegee Institute, 1964

M. S. W; School of Social Work
Atlanta University, 1966

Education Specialist, School of Social Work
University of Georgia, 1971

PROFESSIONAL EXPERIENCE:
Research Assistant
Department of Research and Evaluation
Atlanta Public Schools, Atlanta, Georgia, 7 years.

Coordinator, School Social Work Program
Area I, Atlanta Public Schools, 10 years.

Social Worker, Job Training Project,
Atlanta Public Schools, Atlanta, Georgia, 18 months.

Social Worker, Economic Opportunity Atlanta
City of Atlanta, Atlanta, Georgia, 13 months.

Professor, School of Social Work
Atlanta University, Summer Sessions.

CONSULTANT POSITION:
Project Evaluator, Trotter, J.
Project Stress Control, National Council of Negro Women,
Atlanta, Georgia, 3 years.

GRANT PROPOSALS AND RESEARCH:
Popwell, Emma P. The Educational Benefits of the Title IV-A/XX/SSBG Day Care Program for Students In the Atlanta Public Schools. The Department of Family and Children Services, Day Care Unit, Georgia Department of Human Resources, Contract no. 427-93-70791, February 15, 1987.
Title XX Comprehensive Child Day Care Program, Annual Grant Proposal and Program Evaluation, Contractual Agreement, the Georgia Department of Human Resources and the Atlanta Public Schools, 1980, to present.


With Barnes, J., et. al., Community Survey on Middle School Organization, Atlanta Public Schools, 1980

PROFESSIONAL MEMBERSHIP:

National Association of Social Workers, Inc.
Association for Supervision and Curriculum Development.
National Association for the Education of Young Children.

HONORS:


LOCAL PUBLICATIONS:

Bits, Bytes and Basics, Published by the Division of Research, Evaluation and Data Processing, Atlanta Public Schools. Series of articles on program evaluation and the effects of day care on students and family outcomes, 1982 to 1985.

School Report on Students Achievement, Division of Curriculum and Research Services, Atlanta Public Schools. An annual report for 7 elementary and high schools on the impact of the instructional program on students achievement in reading and mathematics.