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ABSTRACT

In order to describe early childhood care and education in Canada and to discuss some related political realities and issues, this overview paper is divided into four sections. The first section concerns the use and administration of early childhood programs, including some discussion of the cultural and linguistic realities confronted by Canadian early childhhod education and the variations in programs provided by the different provinces and territories. The second section describes current trends in care and educational programs, including the following: expansion of day care centers, licensed private home care, after school day care, and kindergarten for 4-year-olds; and exploration of the "family center" concept. Examined in the third section are two issues presently receiving attention in provincial and federal policy discussion and in research programs: How much and what kinds of day care should be provided? and, How much and what kinds of early childhood education should be provided? Finally, the fourth and fifth sections respectively provide a brief review of some Canadian research concerned with the study of social and cognitive development of young children and offer a discussion of future trends in early education in Canada. (DST)

# EARLY CHILDHOOD PROGRAMS IN CANADA

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# Early Childhood Programs in Canada

Early childhood education in Canada is concerned with the care and education of children from birth through 8 years of age. The traditional focus on day care, nursery, and kindergarten programs has expanded in recent years to include attention to the needs of infants and school-age children in primary grades (Regan, 1983). Increasingly, needs of parents and families of young children are also included in discussions of the provision of such care and education.

Within particular provinces and across the country, patterns of early care and educational provisions vary for children of different ages. For children from birth to age 5, extra-home care and education are found in numerous settings. These include private home day care, center day care, nursery school, and public and private kindergartens. For some Canadian children ages 5 to 8, the school, through both its formal program and extra-school programs, plays a role in meeting care as well as educational needs. Extra-school programs provide supervision and activities for primary-age and some older children before and after school as well as during the lunch period. Many other children of school age spend out-of-school hours in some form of home or center day care. Still others of this age are on their own or in the care of an older sibling in the after-school hours.

Some form of day care or nursery programs for children from birth to age 3 is found in all provinces. However, the percentage of children receiving some kind of extra-parental care is greatest at ages 4 and 5. Provisions for these 4- and 5-year-olds vary widely among the provinces. This variation is due in part to whether or not public kindergartens are

available for 5-year-olds, whether or not particular school boards have established 4-year-old kindergartens in provinces where they are a provincially supported option, and varied levels of provincial funding for day care services. Differences within and among provinces regarding provisions for the care and education of children under the age of 8 are characteristic of Canada's complex pattern of programs and services for young children and their families.

In order to describe early childhood care and education in Canada, and to discuss some related political realities and issues, this chapter will be divided into four sections. The first section concerns the use and administration of early childhood programs, including some discussion of the cultural and linguistic realities confronted by Canadian early childhood education and the variations in programs provided by the different provinces and territories. The second section describes current trends in care and educational programs, and the third examines issues presently receiving attention in provincial and federal policy discussion and in research programs. Finally, the fourth and fifth sections respectively provide a brief review of some Canadian research concerned with the study of social and cognitive development of young children and offer a discussion of future trends in early education in Canada.

## Use and Administration of Early Childhood Programs

As in many countries, the definition of early childhood programs in Canada has recently enlarged as need for and interest in extra-home care and education have increased. Thus, all extra-home environments experienced by children from birth to age 5, as well as after-school extra-home care arrangements used by elementary schoolchildren, will be described

here. Data from a 1981 survey (Statistics Canada, 1982) is now being reanalyzed by two of the present authors (Lero & Biemiller, in preparation). This survey was conducted with 18,000 families (approximately 9,000 with children from birth to age 14) or one-third of Statistics Canada's labor force study sample of February 1981. The sample is highly stratified to generate data from each province and from different regional and economic groups within provinces. (Details of sampling are available in Statistics Canada, 1976.) The data presented below refer to care provided during the week prior to data collection.

Types of Early Childhood Settings in Canada

In Canada, as in other countries, a number of different arrangements for children are included under the rubric of early childhood education. These include both center-based care and education and care in homes. Center-based programs include the following types:

Day care centers provide part- or full-day care and education for children from birth to 5 years of age, usually while parents are working. Programs generally are staffed both by teachers trained in early childhood education and by untrained staff.

Nursery schools provide part-time day care and educational programs for children 2 to 5 years of age. Parents may or may not work. Programs usually are staffed by teachers trained in early childhood education.

Kindergartens provide part-time day care and education programs in elementary school settings for children 4 or 5 years of age. (Programs for 4-year-olds are called junior kindergartens.) Parents may or may not work. Programs usually are staffed by certified elementary school teachers.

After-school programs provide care before school, at lunch, and after school for children between 4 and 12 years of age. Programs are staffed by individuals with a variety of preparations. Parents usually are working.

Home-based programs include the following types:

In-home day care describes child care provided by someone other than the child's parents. These caregivers may include siblings, other relatives, and nonrelatives. Parents usually are working.

Private-home day care encompasses child care provided in a home other than the child's. Care may be offered by relatives or non-relatives. (This category includes both "supervised" private-home day care, in which a provincially licensed agency undertakes to monitor the quality of care, and nonsupervised private-home day care.) Parents usually are working.

## Use of Early Childhood Programs by Children from Birth to 5 Years of Age

As calculated by Lero and Biemiller (in preparation), Table 1 describes, by age, percentages of children experiencing different kinds of care and education in Canada. It should be noted that use patterns such as those presented in this chapter reflect a combination of the following factors:

1. Parents' needs and desire for supplemental care as occasioned by such factors as employment, parents' enrollment in educational institutions or training programs, health and other family-need considerations, and parents' involvement in voluntary activities;
2. Parents' desire for cognitive and social enrichment experiences for their children;

3. Variations in the availability and costs of the different types of care and educational programs (infant care, group day care, nursery school, kindergarten, junior kindergarten, and after-school programs) located in different communities.

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Insert Table 1 about here

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Several comments are in order with respect to the data shown in Table 1. First, when public kindergarten programs are made available in some (but not all) provinces, there is a dramatic rise in nursery-kindergarten participation at ages 4 and 5. (No distinction was drawn between nursery school and kindergarten in the interviews.) Second, as in other countries, care in home settings accounts for the vast majority of non-parental care arrangements for children age 3 and under. The percentage of children receiving some extra-parental care in homes remains quite stable through age 5. Third, once children begin to attend kindergarten or nursery school, a significant number participate in two extra-home settings. For this reason, percentages of children in various settings exceeds 100%.

Table 2 illustrates a second important aspect of extra-home care in Canada: most of this care is not "full-time" in the sense of a 9:00 a.m. to 5:00 p.m. day or longer. Only a small proportion--never exceeding 12%--is reported to receive more than 30 hours of care in one nonparental setting. Another group begins to receive care in two or more extra-parental settings after turning 3 (see Table 3).

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Insert Table 2 about here

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Insert Table 3 about here

Use of two or more extra-parental care settings begins to involve significant numbers of children by age 3 and becomes more common than parent-only care by age 5. About two-thirds of multiple care arrangements are accounted for by nursery school or kindergarten plus home care by a nonparent or family day care provider (see Table 4). The effects of multiple care arrangements presently are being considered by Goelman and Pence (1984).

Insert Table 4 about here

Use of After-school Programs by Children 6 to 14 Years of Age

Table 5 shows children's care arrangements outside of elementary school. Between the ages of 6 and 11, roughly 25% of children require some form of after-school care due to parents' work schedules. The type of care provided shifts dramatically with age. Two-thirds of these children receive after-school care from adults in their own or others' homes at age 6 or 7; approximately half are entirely on their own at ages 10 or 11.

Insert Table 5 about here

Administrative and Financial Jurisdictions

As in most countries, a fundamental administrative distinction is drawn between "educational" programs, including kindergarten for 4-

and 5-year-olds, and "care" programs, including nursery schools, day care, and, recently, some supervised home care. This distinction affects program guidelines, staff qualifications, and sources of financial support.

Publicly supported education. Publicly supported education is entirely the responsibility of the separate provinces and the governments of the Yukon and Northwest Territories. Kindergartens are provided for 5-year-old children in all provinces except Prince Edward Island and New Brunswick. Within the provinces and territories, elected local or regional boards of education have some decision-making powers regarding curricula, books and materials, use of specialists, testing programs, and whether or not to operate kindergartens. In Quebec, Ontario, and Manitoba, local boards may also opt for junior kindergarten for 4-year-olds (Canadian Education Association, 1983). Other variations in kindergarten programs, including full-day and alternate full-day programs, will be discussed in the next section.

Table 6 shows available data on 1981 kindergarten attendance.

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Insert Table 6 about here

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The Province of Alberta has a unique arrangement for kindergarten-age children. Early Childhood Services, a separate division of the provincial Ministry of Education, funds both kindergarten programs for 5-year-olds and programs for handicapped children between the ages of 3 and 8. Parents are encouraged to form cooperatives to operate kindergartens, which receive direct per-capita grants. Alternatively, school boards or private schools also receive per capita grants for children enrolled in kindergarten. Enrollment in this system included 62.1% of children in

Alberta in 1981. Since then, enrollment has increased to 97% of children for 1984-85. Approximately one-quarter of the programs are outside the jurisdiction of regular school boards (E. Torgunrud, personal communication, February 20, 1985).

Kindergarten programming practice does not vary systematically on a province-by-province basis. Programs are similar to kindergarten-nursery programming in the United States and Britain in emphasizing a combination of activity-based "free activity periods," outdoor play, and relatively short periods of teacher-directed activity.

Day care and nursery education. Legally, day care centers, nursery schools, and after-school programs come under the jurisdiction of the provinces and territories. In all cases, regulations concerning day care nursery and after-school standards (staff-child ratios, space per child, nutrition, etc.) are under the jurisdiction of provincial and territorial ministries of social services or human resources. These groups also are responsible for social welfare services, programs for handicapped children, and other provisions. This system parallels arrangements in other Western countries.

Regulations for day care centers vary slightly from province to province with regard to meals and snacks (typically one or two snacks and one meal for full-day programs); space (from 25 to 35 square feet per child inside, and from "safe space" to 75 square feet per child outside); and staff (1:7 for children ages 2 to 4, up to 1:15 for 5-year-olds and school-age children). Group care for infants younger than 18 months is actively discouraged (no licenses granted) in British Columbia and Saskatchewan (National Day Care Information Centre, 1982a). Significant variations exist in provincial standards for staff qualifications. Ontario

recently has instituted a requirement that one staff member in each "group" of children (2-3 staff per group) be a teacher with a degree in early childhood education from an Ontario community college or equivalent. Supervisors are mandated to have the same academic qualifications plus 2 years of experience in programs similar to that being supervised (Ministry of Social and Community Services, Ontario, 1984). In contrast, several provinces have no staff qualification requirements.

Financing of day care (including licensed or supervised private-home day care) receives support through a shared-cost arrangement (the Canada Assistance Plan), through which the federal government matches expenditures by provincial and local governments to subsidize custodial care for "needy" children. The remaining costs for capital and operating funds are shared by provinces and municipal governments and are extremely limited. Except in the case of municipal, nonprofit centers and families who qualify for day care subsidies, operating and other costs must be borne by parents. Population and income distributions, in addition to variations in expenditure by the provinces, result in limited availability of licensed day care spaces. Table 7 shows the average day care expenditure per child from birth to age 5 by each province and indicates the number of children per licensed day care space (including supervised private-home day care).

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Insert Table 7 about here

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Language and Cultural Differences

The Canadian population contains a variety of different linguistic and cultural groups. The country is officially bilingual, with 68% of the population classified as Anglophone and the remainder Francophone

(Statistics Canada, 1983b). However, there are a large number of people whose first language is neither English nor French. Due to large-scale immigration both before and after the Second World War, many other linguistic and cultural groups are present. In Toronto and Vancouver, for example, over half the children entering school each year are not from English-speaking homes. Only a small portion of these children are Francophone. The rest are from Italian, Portuguese, Chinese, Vietnamese, East Indian, Greek, Croatian, German, Polish, Ukrainian, and other backgrounds. Thus, in many cases, early childhood programs are confronted with the problems of working with children and parents whose language is not that of the predominant population in the area.

In addition, there is a rapidly growing movement in English-speaking Canada to provide bilingual education starting in kindergarten. This instruction takes many different forms, ranging from 20-minute lessons twice a week to complete "French immersion." In 1982, over 17% of Ontario kindergartners received some French instruction. Over a quarter of these were in full French immersion or in "full-day" kindergarten (9:00 a.m. to 3:00 p.m.) with half of the instruction in French (Ministry of Education, Ontario, 1982).

## Trends in the Care and Education of Young Children in Canada

A number of changes--both quantitative and qualitative--are occurring in Canadian early childhood services. These include expansion of day care centers, expansion of licensed private home care, expansion of after-school day care, exploration of the "family center" concept, and expansion of kindergartens for 4-year-olds.

Expansion of day care. As in most Western countries, the demand in Canada for day care services has been increasing rapidly. The percentage of married women in the labor force has increased from 35% in 1975 to 47% in 1981 for mothers of children under 6, and from 48% to 61% for mothers of school-age children (Statistics Canada, 1982). This major change in social arrangements has been accompanied by a large increase in licensed day care services, although the increase does not begin to account for the majority of children of working parents. Currently, it is estimated that less than 14% of children under the age of 2 and 36% of children ages 2 to 5 whose parent or parents work full-time are cared for in day care centers or licensed family day care homes. Center-based day care has increased from 27,000 spaces in 1973 to 123,000 spaces in 1983 (from 6% to 13% in total spaces). Licensed private home care spaces have increased even more dramatically (from 1,500 in 1973 to 16,000 in 1983) and will probably continue to increase faster than center-based care (Clifford, 1984). In addition to expansion in the number of centers receiving some public funds, increased interest is evidenced by the development of policies to facilitate employers' sponsorship of day care services.

Licensed private-home care. The growth of private-home day care has included the development of training programs for private-home caregivers and research on the impact of various types of training (Brockman & Jackson, 1982, in preparation). Several provinces have developed or are developing provincial standards for supervised private home care providers and/or agencies (Bates, 1984).

After-school day care. Day care for school-age children (mostly 6 to 9 years of age) also has been increasing rapidly in the early 1980s. This increase appears to be a logical sequitur of the earlier growth of preschool

day care. Over 17,000 licensed spaces for school-age children are now available (Clifford, 1984), an increase of 4,700 in 1 year. Variation in the availability of after-school programs is evident across provinces, however. School-age programs are most prevalent in Alberta, where they are funded and coordinated by municipalities.

Many spaces are in programs established in schools with the encouragement of school boards (Canadian Education Association, 1983). In effect, many schools have vacant or extra space that, some argue, could accommodate neighborhood care and education centers for young children. This kind of accommodation is in fact taking place across Canada, as revealed in the Canadian Education Association's 1983 survey, Day Care and the Canadian School System. In this survey's canvass of 248 boards, 170 replies were received, with 50% of the responding boards identified as providing some kind of child care programs in their schools. Admittedly, the survey shows that most of these programs are located in a few provinces and that the pattern of both service and accessibility within a given province varies. Data from Manitoba, for example, show that seven out of eight school boards report having child care programs. In Ontario and British Columbia, such programs appear more evenly distributed among a larger number of boards.

Also according to the survey, the most frequently offered program or service is represented by the out-of-school care program. Such programs for kindergarten and elementary school children operate, as previously noted, before and after school, as well as during lunchtime, and frequently result from the cooperative effort of the school board, school administration, and parents (Canadian Education Association, 1983, p. 13). Next in order of frequency are day care programs for children

ages 2 to 5, nursery schools, day care for exceptional children, secondary school day care, infant day care (for children from birth to 2 years), drop-in centers, and language immersion programs. An idea of how these "school-housed" programs are responding to need and demand is revealed by the fact that, whereas 49 day care and 19 nursery programs are identified by the survey, only 4 infant day care programs are identified. Interestingly, the province of Ontario, which reports the most in-school preschool programs of this type, also has the greatest number of publicly supported 4-year-old, or junior, kindergartens.

Roles of schools and parents in providing care. The 1983 Canadian Education Association survey suggests that, as a rule, the preschool centers developing in schools are operated by community groups and agencies independent of the school. However, by suggesting in the conclusion of its survey report that "the inclusion of day care services in schools signals a new social role for the school system" (p. 36), the association sets the stage for discussion and debate within Canada regarding what the role of the school should and can be in the life of the preschool child and his or her family. The fact that community residents and parents have been instrumental in establishing these in-school centers and in determining related policies and programs also suggests a new role for parents and community in decision making affecting early education policy and practice. In this context of changing roles, some emerging attitudes and related trends are (a) the notion that early childhood education must consider family and parent as well as child needs; (b) the idea that parents are really partners in, not clients of, early childhood programs and services; and (c) the acceptance of the school as a partner in developing programs and services for preschool-age children and their families.

The family center concept. These attitudes and trends come together in the concept and practice associated with the "family center," an approach to early care and education being considered at this time in Ontario. In theory, the family center is concerned with coordinating school and community resources to address both the development and socialization of young children and parents' need for social networks and environments that afford playmates and stimulation for their children. In practice, these centers are similar to the parent-child "drop-in" centers found in Britain, which encourage all caregivers, including those who may be providing home day care, to make use of the center program and services. Family centers developing in Ontario are different from traditional day care centers in a number of ways, but most significantly in the attention given to parent needs, to the development of parenting/caregiving skills, and the involvement of parents in determining center policy and practice. Located in schools and elsewhere, such centers are seen as a possible answer to the schools' need to respond to family as well as child needs.

Expansion of kindergarten for 4-year-olds. After a number of years of rapid expansion in Ontario, the junior kindergarten program now appears fairly static. Future growth depends on the willingness of local school boards to provide the program. The present state of such programs indicates that, where 4-year-old programs are not now offered, parental demand is not great. Essentially the same can be said for Quebec and Manitoba, where permissive legislation exists for 4-year-old programs but where little growth has been experienced.

## Issues in Early Education and Care

Two basic issues exist in Canadian early childhood education: How much and what kinds of day care should be provided? and, How much and what kinds of early childhood education should be provided? These questions appear to be overlapping. Their distinctness derives from a jurisdictional difference between the day care and educational worlds. This jurisdictional difference is itself beginning to become an issue in public, political, and research foci on early childhood programs.

While similar questions are being asked seriously throughout the Western world, these issues are currently receiving a good deal of political and research attention within Canada. It is quite likely that, despite the general aura of governmental restraint, early education programs will see substantial increases in financial support in the near future, thus reflecting political and public interest in the quality of care and education received by young children. In 1984-85, an internal task force on child care under the federal ministry responsible for the status of women has been reviewing research and developing position papers on various issues related to early childhood care. Furthermore, an expanded federal parliamentary task force on day care has been promised by the newly elected Conservative government.

### Need for Day Care Services

Laura Johnson's Who Cares (1977) and Taking Care (1978) ushered in a new era of Canadian research on who is receiving care and how adequate that care appears to be. Johnson's research described day care users and providers in Toronto. Among other things, she found that the majority of private-home care providers actually believe that, for children 3 and over, center care is preferable to care in a home setting (Johnson, 1978,

p. 255). Since then, the Statistics Canada child care survey (1982) (described in detail earlier in this chapter), a study by Lero (1981) of reasons for selecting day care, a study of school day care options in Toronto (Neufeldt, Ferguson, Friendly, & Stephens, 1984), and a recent intensive interview study of 336 families across Canada conducted for the Federal Task Force on Child Care (Lero, Brockman, Pence, & Charlesworth, 1985) have examined day care needs. Results of the latter study confirmed that significant needs for child care services are not being met at the present time. In addition to regular full- and part-time care, 25% of the families interviewed required, for work-related reasons, regular evening and/or weekend care for a child under 12. Other care needs included backup arrangements on professional development days, when children are ill, and on occasions when regular child care arrangements fall through. (Drop-in centers and centers serving the needs of shift workers are relatively rare in Canada, existing only in the largest urban areas.) The need for additional programs for children of all ages, but especially for rural children 5 to 9 years old, also was evident in this study. A new national child care survey by the National Day Care Research Network will provide an updated and improved picture of who needs and who uses all types of child care and early childhood programs and why. The first phase of this project, under the direction of Donna Lero, has been funded by the federal government.

The present debate on day care needs is addressed in the current Status of Day Care in Canada report, which relates the number of licensed day care spaces to the number of families in which both parents or a single parent is employed or studying full-time (Clifford, 1984). This report emphasizes that, although the percentage of all children under 6

receiving licensed care is small, the percentage of those apparently in the most need who receive such care is much greater. Unfortunately, the data analyses on which such findings are based still leave many questions unanswered. Full-day spaces are frequently used by more than one child on a part-time basis; families requiring care in evening hours or to match shift work patterns are not considered (see Table 8).

Insert Table 8 about here

These data suggest that the care needs of approximately a third to a quarter of preschool children, but much smaller percentages of infants and school-age children, may presently be being met by the existing provincial child care systems. (These percentages will vary markedly across provinces, as indicated in Table 7.) The gap between services offered and needed is being felt politically, as evidenced by discussion of the issue during the recent national election and the promised establishment by the new government of a parliamentary task force on day care.

Effects of Day Care on Children

While research and interest concerning needs and reasons for child care continue to grow, research on the underlying question of the effects of extra-home care on children and families has just begun to have a role in the Canadian debate. At present, one major Canadian study has attempted to examine the experiences of children in different types of care settings and to assess some of the short term consequences associated with them (Pence & Goelman, 1982; Goelman & Pence, 1984). This study emphasizes extensive observational methods. Based on Bronfenbrenner's human ecology framework (Bronfenbrenner, 1979), the Pence and Goelman

(1982) study examines the interaction between social, familial, and individual aspects of the day care experience. The investigation includes measures of the cognitive, language, and social development of children in licensed center day care, licensed private-home care, and unlicensed private-home day care. Recent findings in the United States suggest that early experiences can have demonstrable effects many years later (Lazar & Darlington, 1982). (A difficulty in designing such studies is the fact that use of early child care arrangements probably indicates a continuing family situation that will be different from that experienced in homes where only one parent works or where one parent is home during children's after-school hours.)

Jacob's study of privacy seeking (1980a) and review of privacy behavior and day care environments (1980b) indicate that preschool children need and use privacy to develop personal autonomy and that privacy may play a role in information processing, self-evaluation, and emotional release. She makes practical recommendations based on this research for various ways of providing privacy within day care environments (Jacobs, 1980b, pp. 130-131).

Two studies have examined the consequences of day care and nursery school experience for elementary school children. McKinnon (1982) has indicated that middle class children who attended nursery school, Montessori school, or no preschool were reported by parents and teachers to show similar progress on physical, self-help, social, academic, and communication scales. Innerd (1982) has collected records on all children entering the Windsor, Ontario public school system. He plans to use formal assessments conducted by the school system to examine outcomes as a function of preschool experience.

Effects of Multiple Care Settings

Increasing numbers of children of 5 years of age and under are found in some form of extra-home care, and a growing number of 4- and 5-year-olds are spending time in two extra-home settings (i.e., some form of day care and kindergarten; see Table 3). In fact, some of the major concerns and issues surrounding early childhood education policy and practice in Canada today derive from such multiple care and educational experiences. Specific issues relate to the continuity of children's experiences in multiple settings, parent expectations for different settings, and effects on children of simultaneous exposure to provisions in different settings. Obviously, these sets of issues embrace a number of concerns, including program emphasis or purpose in different settings, expectations for children in different settings, the effects on peer socialization of moving from one setting to another, and other social and physical demands on children (e.g., fatigue).

Financing of Day Care

The financing of day care remains a contentious issue. The "motherhood" issues of who should raise children and who should pay for care and education are much debated. Should families who choose to have a parent at home subsidize families who do not (and in many cases cannot)? Should individuals and families without children at home help pay for the care of others' children, as they have long helped pay for their education? One thrust in Ontario has been provision of government funding for the expansion of day care services that, once in place, will be self-supporting.

School boards in most provinces have begun to make surplus facilities available for day care operations (Canadian Education Association, 1983).

Presently, Quebec is the only province that allows school boards to operate day care services directly for a fee. Day care fees are tax deductible up to $2,000 per child. (This arrangement helps wealthy parents considerably more than those who are less well-off.) Whether any major changes in the present patchwork funding of day care services by parents, all levels of government, and, to some extent, day care providers (through very low salaries) will occur is a moot point. It seems probable that the gradual growth of care arrangements--both licensed and unlicensed--will continue. A dramatic change (e.g., making funds available for child care to a larger income group, a substantially larger child care deduction on taxes, a significantly increased role of the educational system in day care) may come from the current federal task force or from one or more provinces. However, we anticipate more gradual developments.

Teacher Training

The quality of child-adult interaction in preschool and early primary settings has been the focal point of Brophy's assessment of the interaction between adults and special-needs (developmentally delayed) and non-special-needs preschoolers (Brophy, 1985; Brophy & Reinsoo, 1983; Brophy & Stone-Zukowski, 1984). Brophy (1985) concludes from these studies that teachers may need specific new techniques for assisting verbal and communication development in low-verbal and nonverbal children. Miezitis, Gotleib, Steele, & Pierre-Perone (1985) studied use of feedback to student teachers as an approach to modifying interactions with particular children.

Interest in teacher education/caregiver training and concerns related to the professional development of inservice teachers have resulted both in exploratory studies and in the development of training programs. Doucet,

Betsaler-Presser, & Denommes-Roitaille's (1984) concern with identifying teachers' professional development needs was the focus of an exploratory study involving teacher interviews. In the process of developing a training program for family day care providers, Brockman investigated the relative effectiveness of three training models in improving the quality of caregiving (Brockman & Jackson, in preparation). Preliminary analysis of Brockman's study indicates that, as compared with caregivers in two control groups, caregivers who participated in 1-week direct training programs improved the observed quality of their interactions with infants. Although samples were small (nine caregivers in each of four groups), a second interesting finding was that only one of the participants in the short training courses ceased caregiving within a year, while six left from the control groups (L. Brockman, personal communication, October 24, 1985).

King-Shaw and Unruh (1984) have conducted a survey of preservice preparation for kindergarten teachers in faculties of education across Canada. They report that, despite the growing interest in early education, preparation of kindergarten teachers remains largely a sideline in teacher education institutions. Their report also contains teachers' views on improving preservice and inservice programs for teachers.

Early Identification

Early identification of learning disabilities in kindergarten has been a subject of policy concern in Ontario for a number of years. Research conducted by O'Bryan in Windsor, Ontario (O'Bryan, 1976) led to the view that children who would develop learning disabilities could be identified at the senior kindergarten level. Follow-up research in third grade confirms that a series of test batteries and teacher ratings provides reasonably

accurate predictions of school performance (O'Bryan, 1981). The follow-up study also indicated that such identification procedures carried out with junior kindergarten children were not effective and that interventions subsequent to kindergarten were not related to the identification procedures. A later study by Davidson, Silverman, and Hughes (1981) of mandated early identification procedures in Ontario found that a "lack of clarity about purpose was frequently apparent within boards, and lack of consistency [existed] between boards with regard to goals, procedures, and techniques" (p. iii).

Continuity from Ages 4 to 8

The issue of continuity of programming between kindergarten and the early primary grades is being examined in both Ontario and Alberta. In Ontario, the Early Primary Education Project conducted by the Ministry of Education is currently examining programs for children ages 4 to 8. Particular emphasis is being given to reviewing program content, maintaining continuity in programming from kindergarten through the early primary years, and improving coordination between different agencies (e.g., education, day care, municipal supports, etc.) dealing with children in this age range and their parents. This project is a response to both the Ministry's own finding that the nature of programming provided in kindergarten and first grade differs to an undesirable degree in terms of child-chosen versus direct instruction (Ministry of Education, Ontario, 1983) and the findings and recommendations of a study of education in Ontario (LaPierre, 1980). Among the recommendations of the latter study is one supporting the creation of family centers concerned with providing a full range of care and education services for children 0-8 and their families. This concept of the family center differs from

that described earlier in that it would essentially replace the early primary school years.

In Alberta, a recent study examined "articulation" between kindergarten and first grade. (Pain, 1984). Defining high articulation as including (a) continuity of experience between kindergarten and first grade in methods and philosophy, (b) opportunity for kindergarten and first-grade children to interact, (c) involvement of parents in the program, and (d) communication and joint planning among teachers, this study contrasted high- versus low-articulation first grades by examining data derived from observations and interviews with teachers and principals. High-articulation teachers placed more emphasis on individual development. Self-confidence, self-direction, and enjoyment of learning were stressed by these teachers. More self-selection and opportunities to proceed at the child's pace were permitted, as was more helping among children. Unfortunately, this study did not include examination of measurable effects on children, either in terms of observed behavior or developed abilities.

Compensatory Education

Compensatory education has been of interest in Canada at least since the opening of the first kindergarten for 4-year-olds in Toronto in 1940. Beneficial effects for deprived and non-English-speaking children were an assumption in the development of 4-year-old kindergartens in Ontario in the 1960s. More recently, demonstration projects by Palmer (1966) and especially Wright (1983) have emphasized the potential of preschool education to have some compensatory impact on children from poor socioeconomic backgrounds. Wright's work is of interest because it focuses on an urban Canadian population differing in composition from comparable populations in

the United States, shows compensatory effects up to 3 years after program participation, and does not involve a parent component. On the other hand, research by Fowler (1978) on infant day care programs failed to show any significant effects of compensatory education.

Compensatory programs for native children have been a related concern. The Central Regina (Saskatchewan) Early Learning Center, established in September 1977, is an early intervention program for disadvantaged preschoolers from 3 to 5 years of age. This program encourages a high level of parental involvement and seeks to "enhance the well-being and self-determination of the family unit within the community" (Deines, 1981, p. 131). With few exceptions, the children and parents involved are of native origin, and the first language of most participants is English. Although the program emphasizes the development of basic skills, attention is given to promoting pride in the children's and parent's cultural heritage.

Mayfield (1983) describes a project concerned with supporting infant growth and development through training programs for parents and community residents on a reserve in British Columbia. This adult training program combined modern ideas of child development with traditional native teachings. Although the sample sizes are too small to draw definite conclusions, Mayfield's evaluation of the program suggests a reduction of kindergarten "failures" and an increase in the number of children classified as normal on the Denver Developmental Screening Test.

Full-day Kindergarten

The availability of classroom space and teachers, combined with the growing need for child care and interest in the beneficial effects of early education, has led to experiments with full-day kindergarten programs

(9:00 a.m. to 3:30 p.m.). Biemiller (1983) compared children who had attended full-day kindergarten in two rural counties with comparable children who had attended half-day or alternate full-day kindergarten. No differences in academic skills or teacher ratings of temperament and self-direction were found either in kindergarten or in second grade. Bates, Deeth, Wright, & Vernon (in press) examined the impact of full-day kindergarten on deprived urban children. Again, no important differences were reported.

In addition, full-day kindergartens are used in Ottawa, Toronto, Montreal, and elsewhere in conjunction with French-immersion classes. French is used for the afternoon component of the kindergarten program and full-time thereafter. Reports by Avid (1979, 1980) compared English-speaking, Greek-speaking, and French-speaking children in French-immersion kindergarten. Depending on the measure used, results indicated either that English- and Greek-speaking children made similar progress in French or that Greek-speaking children made more progress. Attendance in French-speaking schools facilitated progress.

## Canadian Research Related to Early Childhood Education

Canadian researchers also are involved in the study of social and cognitive development of children in preschool settings and in investigations of the problems of special-needs children. Research related to social development includes the extensive work of Rubin, Ross, and colleagues on peer relationships and social skills (Rubin & Ross, 1982); Jacobs' (1980b) study of social networks and peer relations among preschool children; and the work of White and her colleagues (Mendelson & White, 1982; White, Mauro, & Spindler, 1983) focusing on how children develop ideas about sex role, ethnic identity, and body image.

Weininger's (1979) analysis of the functions of play has influenced both teachers and policy development. For example, his concerns about freedom for exploration and play have been reflected in the recent Ministry of Education, Ontario (1985) document Shared Discovery.

Studies by Case and his colleagues (Case, 1985, chap. 8; Case & Khanna, 1981) have emphasized the development of intellectual capacity during the preschool years. Using a theory combining Piagetian and information-processing conceptions of cognitive growth, these researchers have examined the development of storytelling, social problem solving, solutions to balance-beam problems, and other aspects of mental growth in the preschool years.

The Laboratory of Human Ethology in Montreal, under the direction of Fred Strayer, has been involved in a long term study of social development in children ages 1 to 5. Recent reports from the laboratory have examined the growth of dominance and affiliative hierarchies (Strayer & Trudel, 1984), emergence of same-sex preferences (LaFreniere, Strayer, & Gauthier, 1984), and conflicts involving groups of three children (Strayer & Noel, in press). While Strayer and his colleagues have not focused specifically on early childhood issues, their findings present a wealth of information about the behavior of young children in day care settings. An overview of his methods and of their generalizability over a number of different settings appears in Strayer (1980).

An important aspect of much research currently underway in Canada is the development of instruments for and methods of studying young children and their environments. Design and evaluation of measures are critical components of Brockman and Jackson's (in preparation) study of family day care settings. Krasnor and Rubin (1981, 1983) have been con-

cerned with developing measures of social problem solving. Nash (1981) has developed a sequence of teacher-observable criteria for comparing children's classroom skills in a kindergarten program to monthly progress norms. Biemiller and Morley (1985) have developed a video and interview technique for looking at children's self-direction, and Doucet et al. (1984) and Regan (1985) have been concerned with refining interview techniques used in exploring teacher perceptions and beliefs.

## The Future for Early Childhood Research and Programs

Future early childhood research and programming are likely to be influenced by social concerns and by public and professional perceptions of the care and educational needs of young children and their families. Certainly, increasing attention to family and child needs at both policy-making and practical levels is characteristic of the current early childhood scene in Canada. In contrast to the traditional concerns with parent involvement in supporting child development and learning, current perceptions of such involvement include the participation of parents in policy discussions to determine the nature of care and education in early childhood settings (Canadian Education Association, 1983; Pain, 1984). As parents assume a greater partnership with early childhood professionals, social agencies within communities likewise are becoming more involved in policy development and programming. One positive feature of the increase in groups and agencies concerned has been the effort, in some communities, to develop better understanding among the institutions involved. This trend is especially evident in communities where communication and cooperation have been established between schools and other community agencies.

A significant outcome of broad-based participation in early childhood care and education has been the development of a number of alternatives to more traditional provisions. In fact, the variety of options within Canada and the number of individuals, community groups, and social agencies involved in provision is also characteristic of the current situation. Although this variety of options is not necessarily available to most families, the development of alternatives to meet varying child and family needs is a decided trend.

From a research perspective, this trend is likely to promote increased systematic study of program variations in different settings as well as study of the effects of different and/or multiple care settings and education in the early years. The study of early childhood programming and its effects is increasingly concerned with developing means for describing the process of what in fact goes on in various settings (e.g., Goelman & Pence, 1984; Strayer, 1980; Strayer & Trudel, 1984) and with determining parents' perceptions of satisfaction with particular care and educational provisions (e.g., Lero, 1981; Lero et al., 1985; Statistics Canada, 1982).

Finally, the early childhood field in Canada is characterized by growing recognition of the need to conceptualize the care and education of children ages 4 through 8 in ways that promote a continuum of experience and easy transitions from preschool to kindergarten to primary grades. In addition to an increase in dialogue among the individuals and agencies involved, another response to this need is seen in proposals for innovations in the training of teachers and other early childhood professionals. Specific proposals address more specialized early childhood education training for primary grade teachers and more training for all professionals

to promote the skills and understanding needed to work effectively with parents, community workers, and agencies.

In summary, Canadian research and policy analysis related to early childhood education and care are rapidly approaching a critical mass. Descriptive research studies are documenting the large percentage of children experiencing early childhood care. More is being learned about children's care and educational histories; this information is in turn attracting interest in examining such issues as the quality components essential to care in each type of setting; continuity between programs and experiences; and the consequences of alternative preschool experiences on children's academic, social, and personal development. Increased public demand for day care, early childhood education, family resource programs, and after-school services also is contributing to a sense of urgency in this area. In the years to come, we might anticipate not only additional programs, but also exciting research on alternative models for providing care and education to meet the diverse needs of Canadian children and their families.

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Table 1

Percentage of Children Five and Under in Full-time and Part-time Care/ Education Settings

| Age | Number of children[a] | Type of Setting: Parents only | Nursery school or kindergarten | Day care centers | In-home day care | Private-home day care |
|---|---|---|---|---|---|---|
| 0-1 | 726,675 | 62.3% | b | b | 17.9% | 19.7% |
| 2-3 | 702,785 | 52.6% | 10.5% | 8.5% | 18.9% | 19.1% |
| 4 | 353,465 | 37.9% | 37.6% | 9.7% | 18.1% | 18.1% |
| 5 | 355,765 | 17.5% | 76.6% | c | 20.3% | 16.4% |

Note. Some children use more than one setting; total percentages for age brackets are therefore more than 100. (See Table 3.)

[a]Estimated number of children in Canada, based on 1981 census. These numbers do not correspond precisely to sample estimates generated in the survey. [b]Value less than 3.2%. Exact values cannot be reported under Statistics Canada reporting rules. [c]Value less than 6.4%. Exact values cannot be reported under Statistics Canada reporting rules.

Table 2

Percentage of Children by Age, Hours of Extra-parental Care, and Type of Care

| Age/Type of Care | Percentage of children receiving care | Hours of Care | | |
|---|---|---|---|---|
| | | Less than 20 | 20-29 | 30 or more |
| 0-1 | | | | |
| Center[a] | b | b | b | b |
| Home[c] | 37.6% | 23.0% | b | 11.6% |
| 2-3 | | | | |
| Center | 18.9% | 12.0% | b | 5.2%[d] |
| Home | 38.0% | 22.5% | 3.6%[c] | 11.9% |
| 4 | | | | |
| Center | 47.1% | 39.8% | e | e |
| Home | 36.2% | 21.6% | e | 10.0%[d] |
| 5 | | | | |
| Center | 81.4% | 75.4% | e | e |
| Home | 36.7% | 28.5% | e | e |

Note. Percentages for a particular age bracket add to more than 100 due to use of multiple care settings. (See Table 3.)

[a]"Center" care includes both day care centers and nursery/kindergarten. [b]Less than 3.2%. Exact values cannot be reported under Statistics Canada reporting rules. [c]"Home" care includes both care by a nonparent in the child's home and care in another home. [d]Percentage subject to substantial sampling error. [e]Less than 6.4%. Exact values cannot be reported under Statistics Canada reporting rules.

Table 3

Percentage of Children 5 and Under Using Different Numbers of Care Settings

| Age | Number of Care Settings | | | |
|---|---|---|---|---|
| | Parents only | Parents + 1 other setting | Parents + 2 other settings | Parents + 3 other settings |
| 0-1 | 62.3% | 35.1% | a | a |
| 2-3 | 52.6% | 39.3% | 6.6%[b] | a |
| 4 | 37.9% | 42.6% | 18.1% | c |
| 5 | 17.5% | 51.1% | 27.1% | c |

[a]Value less than 3.2%. Exact values cannot be reported under Statistics Canada reporting rules. [b]Percentage subject to substantial sampling error. [c]Value less than 6.4%. Exact values cannot be reported under Statistics Canada reporting rules.

Table 4

Combinations of Care Arrangements, Canada, 1981

| Age | Parents only | Nursery School-Kindergarten | | | Day care center only | In home day care only | Private home day care only | Other combinations |
|---|---|---|---|---|---|---|---|---|
| | | Only | + In Home day care | + Private home day care | | | | |
| 0-1 | 62.3% | a | a | a | a | 15.6% | 17.2% | a |
| 2-3 | 52.6% | 5.3%[b] | a | a | 6.0%[b] | 13.0% | 15.0% | 4.3%[b] |
| 4 | 37.9% | 20.6% | 7.0%[b] | 7.2%[b] | c | 7.2%[b] | 8.4%[b] | c |
| 5 | 17.5% | 46.3% | 13.6% | 10.5% | c | c | c | 7.3% |

[a]Less than 3.2%. Exact values cannot be reported under Statistics Canada reporting rules. [b]Percentage subject to substantial sampling error. [c]Less than 6.4%. Exact values cannot be reported under Statistics Canada reporting rules.

Table 5

Percentage of Children Receiving Various Type of After-school Care by Age

| Age | Number of children[a] | After-School Care Provided by: Parents only | Children on own | Sibling[b] | Other adult in child's home | Other adult in other home | School or community program |
|---|---|---|---|---|---|---|---|
| 6-7 | 703,020 | 76.6% | 3.4%[c] | d | 5.4% | 10.0% | d |
| 8-9 | 718,070 | 75.9% | 7.6%[c] | 6.4%[c] | 4.3%[c] | 5.3%[c] | d |
| 10-11 | 768,120 | 74.5% | 12.9% | 6.2%[c] | 3.5%[c] | d | d |
| 12-13 | 758,025 | 65.1% | 25.9% | 4.5% | d | d | d |
| 14 | 394,720 | 56.3% | 40.3% | e | e | e | e |

[a]Number of children from 1981 Census. Numbers differ slightly from those generated in survey. [b]No data available on ages of siblings. [c]Percentage subject to substantial sampling error. [d]Value less than 3.2%. Exact values cannot be reported under Statistics Canada reporting rules. [e]Value less than 6.4%. Exact values cannot be reported under Statistics Canada reporting rules.

Table 6

Percentage of 4- and 5-year-old Children Attending Kindergarten

| "Pre-grade 1" Enrollment[a] | Provinces with no public kindergarten | | | Provinces with kindergarten for 5-year-olds | | | | Provinces with kindergarten for 5-year-olds and some 4-year-olds | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Prince Edward Island | New Brunswick[a] | New-foundland[a] | Nova Scotia[b] | Saskatch-ewan[a] | Alberta[a] | British Columbia[a] | Quebec[c] | Ontario[d] | Manitoba[e] |
| age 4 | NA | NA | NA | NA | NA | NA | NA | 7.6% | 43.5% | 11.1% |
| age 5 | 2.6% | 4.1% | 103.0% | 97.1% | 102.5% | 62.1% | 100.9% | 96.6% | 97.2% | 88.4% |

[a]Data from Statistics Canada (1983b). Includes public and private schools. [b]Data from Ministry of Education, Novia Scotia. [c]Data from Ministrie du Education, Government de Quebec. [d]Data from Ministry of Education, Ontario. [e]Data from Ministry of Education, Manitoba.

Table 7

Expenditures and Spaces (Center and Private Home) for Day Care by Province, Canada, 1982

| | Province | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Newfoundland | Prince Edward Island | Novia Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia |
| Expenditure per child 0-5[a] | $11.60 | $34.80 | $41.57 | $17.57 | $70.08 | $101.22 | $67.05 | $67.05 | $184.51 | $87.92 |
| Number of licensed spaces for children 0-5 | 533 | 465 | 3,489 | 2,095 | 23,141 | 43,398 | 6,188 | 2,555 | 16,272 | 12,438 |
| Number of licensed spaces for children 6 and over | - | - | 526 | 260 | 1,140 | 4,018 | 1,676 | 510 | 1,820 | 3,516 |
| Expenditure per licensed space[b] | $1,261 | $875 | $874 | $541 | $1,710 | $1,589 | $1,498 | $2,628 | $2,540 | $1,617 |
| Licensed spaces as % population age 0-5: | | | | | | | | | | |
| private home | - | 0.2% | 0.1% | - | 0.2% | 0.5% | 0.9% | 0.1% | 0.4% | 2.2% |
| center | 0.9% | 3.9% | 4.7% | 3.2% | 3.9% | 5.6% | 5.8% | 2.5% | 6.8% | 3.4% |

Note: Expenditures include federal contribution. Data from National Day Care Information Center (1982b).

[a]In provinces with after-school programs for children 6 and over, expenditure prorated. [b]Expenditure per space includes expenditure for spaces for children over 5.

Table 8

Percentage of Canadian Children in Licensed Child Care Settings (Including Centers and Private Home Care) Canada, 1983

| Parents' Employment Status | Age of Children | | |
|---|---|---|---|
| | Less than 2 | 2-5 | 6-13 |
| Mothers in labor force | 5.4% | 16.1% | 1.3% |
| Full-time working parents | 13.6% | 35.7% | 2.5% |
| Full-time working parents + students | 12.5% | 32.6% | 2.3% |
| Full-time working parents + students + one or single parent working 20-29 hours a week | 10.1% | 26.0% | 1.8% |

Note. Data from Status of Day Care in Canada, 1983 by H. Clifford, 1984. Ottawa: Health and Welfare Canada.