Caring and Learning Environments:

Quality in Child Care Centres Across Canada

you bet I CARE!

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Executive Summary

Canadian experts in diverse fields — for example, health,[1] education,[2] economics,[3] crime prevention[4] — as well as people concerned about social justice and cohesion,[5] have identified quality child care as a crucial component in addressing a variety of broad societal goals. This report documents the findings of the largest, most systematic and most multi-jurisdictional study ever conducted in Canada to explore the relationships between centre quality and:

1. centre characteristics;
2. teaching staff wages and working conditions; and
3. teaching staff characteristics and attitudes.

Data were collected in 122 infant/toddler rooms and 227 preschool rooms in 234 centres across six provinces and one territory. The data analyses went beyond a simple description of these classrooms and identified the critical factors that *predict* the level of quality in a child care centre.

The scores obtained by the teaching staff as a group on the *Caregiver Interaction Scale* (*CIS)* indicate high levels of sensitive, attentive and engaged teacher behaviour with children and low levels of harshness or detachment. These *CIS* scores, along with the scores from the *Infant/Toddler Environment Rating Scale* (*ITERS*) and the *Early Childhood Environment Rating Scale–Revised* (*ECERS–R*), indicate that physically safe environments with caring, supportive adults are the norm in the majority of centres in Canada. However, fewer than half of the preschool rooms (44.3%) and slightly more than a quarter of the infant/toddler rooms (28.7%), are also providing activities and materials that support and encourage children's development. Instead, the majority of the centres in Canada are providing care that is of minimal to mediocre quality. The children's physical and emotional health and safety are protected, but few

opportunities for learning are provided. This represents a major lost opportunity to capitalize on the potential of child care to support children's development.

Young children enrolled in full-time child care, as were the subjects of this study, spend a high proportion of their waking hours in the child care setting. Given our understanding of the importance of developmentally appropriate stimulation for young children, the low levels of quality revealed in this study should be a major concern and focus of remediation for politicians, policy analysts, parents and the whole society. The finding that 7.8% of the infant/toddler rooms and 7.1% of the preschool rooms were providing a level of care that has been described by the authors of the scales as likely to compromise children's development[6] is of special concern. Of equal concern is the overall lower level of care in infant/toddler rooms, where the children are the youngest and most vulnerable.

Statistical analyses revealed that higher levels of staff sensitivity were associated with:

1. higher staff wages;
2. teaching staff with higher levels of ECCE-specific education;
3. better benefits;
4. higher staff levels of satisfaction with their relationships with colleagues and the centre as a work environment;
5. the centre being used as a student-teacher practicum site;
6. the centre receiving subsidized rent and/or utilities (a factor that allows it to pay higher wages);
7. the centre having favourable staff: child ratios; and
8. the centre being non-profit.

Summary of Significant Direct and Indirect Predictors of *ITERS* and *ECERS–R* Total Scores, 1998

Types of predictor	***ITERS* score**	***ECERS–R* score**
Direct predictors of *ITERS* or *ECERS–R* scores	1. The observed staff member's wages 2. The centre is used as a student-teacher practicum site 3. The centre receives subsidized rent and/or utilities	1. The observed staff member's wages 2. The observed staff member's level of satisfaction with colleagues and the work environment 3. The adult:child ratio at the time of observation 4. The centre is used as a student-teacher practicum site 5. The centre receives subsidized rent and/or utilities
Direct AND indirect predictors of *ITERS* and *ECER–R* scores	1. The observed staff member's level of ECCE-specific education 2. The number of staff in the observed room	1. The observed staff member's level of ECCE-specific education 2. The number of staff in the observed room
Indirect predictors of *ITERS* and *ECERS–R* scores	1. The auspice of the centre 2. Level of full-time fees	1. The auspice of the centre 2. Level of full-time fees

Two different statistical techniques were used to determine the variables that predict *ITERS* and *ECERS–R* scores — logistic regressions and path analyses. These demonstrate not only which variables are important predictors, but also the relative weight of each, and which contribute directly, indirectly, or both directly and indirectly to quality. The table summarizes the findings of these analyses. Each set of predictor variables in the table is listed in order of its relative strength. Thus, the strongest direct predictor is wages. Auspice is the strongest indirect predictor; while it does not directly predict quality, it does predict wage level, which, in turn, predicts quality. The strongest variable that is both a direct and an indirect predictor is the level of the observed staff member's ECCE-specific education.

The table also demonstrates very clearly that quality is not the result of simple uni-directional relationships between predictors and outcomes, but rather a dynamic interaction among different kinds of variables. Improvements in the quality of child care in Canada will depend upon addressing this complex interaction itself, not just one or two variables. A summary follows of a set of guiding principles that we drew from the study, and our recommendations.

Notes

1 National Forum on Health 1997.
2 Council of Ministers of Education, Canada 1998.
3 Cleveland and Krashinsky 1998; Kent 1999.
4 National Crime Prevention Council 1996.
5 Battle and Torjman 2000; Jenson and Stroick 1999; National Council of Welfare 1999.
6 Clifford, Harms and Cryer 1991.

Summary of Guiding Principles and Recommendations

The recommendations presented below are based on the findings of this study and reflect what we believe must be done in order to enhance quality in Canadian child care centres. While child care remains a provincial/territorial responsibility, we also believe that funds from the federal government as well as the provincial/territorial governments are critical for the implementation of our recommendations. We urge the reader to review Chapter 6, in particular, in order to understand the reason for each recommendation.

Guiding Principles

1. There must be a concerted and sustained public and political will to create more and better child care programs for the children and families who are served by them. This political will must manifest itself in raising child care to a more visible and active place on the agendas of the federal, provincial and territorial governments, and in viewing high quality child care services as a positive investment in children, families and communities.

2. There must be coordination among ministries and departments, and between all levels of government. Child care touches on many aspects of child and family policy, that include but are not limited to health, education, labour and social services. Coordination is needed to ensure that a reasonable, rational, consistent and complementary set of incentives is introduced across government departments.

3. The extreme variation in both child policies and child care quality across jurisdictions must be addressed. The variation in areas such as adult:child ratio, group size and required levels of ECCE-specific education for staff contributes to the variations in quality observed in this study. It is essential that ***all*** children, regardless of where they live or their family's income level, have access to high quality early childhood education and care programs that not only protect their emotional and physical well-being but also support and encourage their development.

Recommendations

Recommendations on Regulations

1. By the year 2007, all provincial and territorial governments must require that all child care staff at the rank of "teacher" (that is, a person responsible for a group of children) have completed the equivalent of a two-year, post-secondary, ECCE-specific education program.[1]

2. By the year 2010, all provincial and territorial governments should require that all child care staff at the rank of "teacher" have completed the equivalent of a four-year, post-secondary, ECCE-specific education program.[2]

3. All provincial and territorial governments must continue to regulate and enforce acceptable group sizes and adult:child ratios at levels consistent with those demonstrated by research as being associated with the provision of quality child care programs.[3]

Recommendations on Pre-Service Staff Education and Continuing Professional Development

4. Colleges, universities and other institutions providing post-secondary ECCE education, assisted by governments, must immediately address the current barriers of availability and accessibility faced by people wishing to obtain basic ECCE-specific credentials. Addressing these barriers must include:
   - the provision of both on-site and distance education programs for both full-time and part-time students;
   - the delivery of programs through a variety of different educational formats, such as correspondence courses, courses on the internet etc.;
   - the provision of supervised practicum experiences within reasonable distances from the students;
   - the provision of financial assistance and incentives to students in two-year post-secondary or equivalent ECCE education programs. This should include the provision of scholarships, bursaries and loans while in the educational program, and wage enhancements for graduates of such programs who are working in child care settings.

5. All provincial and territorial governments must immediately begin to provide financial assistance to centres to encourage them to hire graduates from two-year post-secondary ECCE programs, and to enable them to pay such staff higher wages.

6. Colleges, universities and other institutions providing post-secondary ECCE-specific education must immediately ensure that their programs include training for specific child populations, such as infants, children from diverse cultures, children who have special needs, and children of school age.

7. Colleges, universities and other institutions providing post-secondary ECCE-specific education must provide advanced training in program leadership and administration for people who are, or wish to become, centre supervisors or directors.

8. Colleges, universities and other educational institutions, governments, professional associations and child care programs must work together to ensure that in-service and continuing professional development opportunities are available and accessible in all jurisdictions for both staff and directors.

Recommendations on the Financial Aspects of Child Care

9. Governments must provide direct operating grants to child care centres in all jurisdictions so that the centres have a stable base of operating revenue.

10. Governments must provide centres in all jurisdictions with wage enhancement grants.

11. Governments must commit to funding the recommendations relating to improving the availability and accessibility of ECCE education and the payment of incentive grants to centres to encourage them to hire staff who are graduates of a two-year or equivalent post-secondary ECCE education program.

12. Governments should provide incentives for property owners to reduce or eliminate child care centres' costs of rent and utilities, and to facilitate the co-location and sharing of resources between licensed child care programs and schools, colleges, universities and other public and quasi-public institutions.

Recommendation on Administration

13. Governments should encourage and support child care centres to serve as ECCE student-teacher practicum sites through financial recognition of the additional staff costs incurred in the provision of supervision, guidance and mentoring for students.

Recommendations on Job Satisfaction and the Work Environment

14. Governments, centre boards of directors and owners, and centre administrators must recognize the importance for quality programs of meeting the personal and professional needs of teaching staff and, as a first step, must allocate funds for this purpose.

15. Centre boards of directors and owners, perhaps in association with professional organizations and governments, must develop mechanisms to ensure that all regularly employed child care staff can participate in benefit plans, such as disability insurance, that would help to attract and retain employees.

16. Centre directors and staff must make the creation of a supportive work environment a high priority. This includes ensuring that staff know the formal and informal avenues for expressing concerns and addressing issues that affect their own and their collective well-being.

17. Governments and centre operators must encourage and enable centre directors to take specialized training in leadership and administration.

18. Recognizing that feelings of isolation and inadequacy are not uncommon in highly demanding service professions such as child care, ECCE educational programs must assist students to recognize the importance of their feelings, and impress upon them the need for personal reflection and interpersonal communication with other staff and the centre director.

19. Governments and professional associations must immediately undertake a public education campaign that links the importance of children's experience during their early years and the value of people who work in the child care field.

Notes

1 The equivalent in Québec is currently a three-year course that starts after Grade 11 rather than after Grade 12 as in other jurisdictions.

2 The equivalent in Québec is currently a two-year college course after completion of Grade 11, followed by four years of university.

3 See Canadian Child Care Federation 1991, p. 9 for recommendations, based on the research literature, for adult:child ratio and group size by age group.

Chapter 1
Introduction

1.1 Background

1.1a The Three Studies of the You Bet I Care! Project

The *You Bet I Care!* project involved three studies and covered both centre- and family-based child care settings serving children under age six.

Study 1, the findings of which are reported in *You Bet I Care: A Canada-Wide Study on Wages, Working Conditions and Practices in Child Care Centres,*[1] used mail-out questionnaires to centre directors and teaching staff in order to obtain information about wages, working conditions, staff educational levels, centre practices and staff views on child care as a career from centres in each province, the Northwest Territories and the Yukon. Study 1 included 4,154 child care staff in 848 centres.

Study 2, the subject of the present report, collected information similar to that collected in Study 1 on a different sample of centres in six provinces and one territory. The Study 2 sample of 234 centres included 1,352 teaching staff who answered questionnaires. Of these, 318 permitted observations in their rooms and participated in follow-up interviews as well. Study 2 was conducted in Alberta, British Columbia, New Brunswick, Ontario, Québec, Saskatchewan and the Yukon in 1998. The focus of this study is to identify those factors that are most important for predicting and maintaining high quality teacher-child interactions and optimizing the quality of developmentally stimulating learning experiences in child care centres.

Study 3, the findings of which are reported elsewhere,[2] collected information from regulated family child care providers; the information was similar to that collected in Study 2 and in the same seven jurisdictions. It also included on-site observations in the homes of providers who completed questionnaires about themselves and their working conditions.

1.1b The Importance of Child Care Quality

Child care centres serve a variety of purposes that augment and support the family in raising its children. One purpose is the provision of an enriching experience that fosters children's physical and emotional development and the development of their social, language and cognitive skills. In 1994/95, the latest year for which statistics are available, an estimated 188,000 children under age six were enrolled in child care centres across Canada while their parents worked or studied.[3]

A number of different but related bodies of research provide solid evidence that important developmental changes happen in early childhood.[4] These areas of research are consistent in demonstrating that children's early experiences lay the foundation for their later emotional well-being and skill development.

- The most recent body of research is in the area of early brain development. This research has been aided immeasurably by advances in imaging technologies. The findings from brain research demonstrate that the brain depends on a dynamic and delicate interaction of biology, experience and interaction with significant others.[5] The recent brain research draws on a much-respected lineage of work on child development throughout the twentieth century and lends strong empirical and biological support for psychological and educational theories of development.

- The "respected historical lineage" of the second body of research can be traced to the late nineteenth and early twentieth centuries and continued through the work of Maria Montessori with young children in the slums of Rome, work which began in the early 1900s. The 1920s and 1930s saw a sharp increase in interest in early child development, manifested by Jean Piaget and Lev Vygotsky in Europe and by people like Arnold Gesell in the United States. The work of Jerome Bruner, James McVicker Hunt and others in the United States in the 1950s and 1960s drew on earlier Piagetian theory and emphasized the dynamic potential of the child's early learning years.

- Since the 1960s, the work of Bruner, Hunt, Edward Zigler and others has made major contributions to our understanding of the effects of compensatory early childhood education intervention programs for children considered to be "at-risk" for later school failure based on a combination of environmental and medical conditions. This third body of research has documented the better academic performance of "at risk" children who received compensatory preschool, compared to children from similar homes who did not. This research has demonstrated the importance of activities that stimulate language and reasoning during the preschool period, especially for children who otherwise may not receive adequate support and stimulation in these critical early years.

- In the late 1970s researchers began to pay increasing attention to the natural "ecology" of child care.[6] In contrast to previous studies that focused exclusively on "model" high-quality university-sponsored child care centres, this fourth body of research considered more "modal," typical and community-based child care programs. It also depended less upon laboratory-oriented procedures and used more naturalistic and non-intrusive observational instruments. Research on child care programs has expanded

greatly and now affords policy-makers, parents, child care professionals and educators the opportunity to understand the rich interplay of factors that affect child care programs. This understanding can be used to ensure that children from diverse backgrounds and family circumstances can receive stimulating and sensitive care in early childhood education and care programs across Canada.

The findings from two recent U.S. multi-state studies illustrate the influence of child care quality on children's development while they are still in the program. The first, the *Cost, Quality and Child Outcomes in Child Care Centers* (*CQO)* study, involved 826 children from all socio-economic backgrounds in 183 centres across four states.[7] The other study, the *National Institute of Child Health and Human Development Study of Early Child Care* (*NICHD*), involved 852 children from diverse family backgrounds across ten states and included children in both centre- and family-based child care.[8] When children in high-quality child care were compared with peers in low-quality care, they were found to have better social skills,[9] fewer problem behaviours,[10] better language skills,[11] and to obtain higher scores on measures of school readiness.[12] These findings are consistent with the findings from previous smaller studies in both Canada[13] and the United States.[14]

The *CQO* study specifically examined the question of whether family characteristics, such as maternal level of formal education and family income, moderate the influence of the child care experience. The researchers reported that "there was no evidence that children from more advantaged families were buffered from the effects of poor quality care."[15]

Language ability, social skills and school readiness skills are all important for children's adjustment to elementary school and their later academic success.[16] Research indicates that the effects of the quality of the child care received by the child carry over into school. The *CQO* study followed its 826 children to the end of Grade Two. Even after taking into account the children's subsequent educational experience between child care and Grade Two, children who had attended higher quality centres had better language and mathematical skills, fewer problem behaviours, and better peer relationships.[17] Furthermore, *CQO* found that "higher quality care was associated with better developmental outcomes for children across the range of family circumstances."[18] The *CQO* study's findings related to the influence of child care quality on children's abilities in elementary school are consistent with those from previous studies done in Canada,[19] Sweden,[20] and the United States.[21]

1.2 Dimensions of Quality

Urie Bronfenbrenner's work on the "ecology" of child development has inspired a generation of researchers to examine typical, community-based child care programs in terms of both their internal dynamics and the social and political contexts in which they operate.[22] Drawing on this theoretical framework and over 30 years of ecologically oriented child care research, we now understand that quality in child care is not one homogeneous factor but rather a multi-dimensional phenomenon that involves a complex and dynamic interaction of different factors.

Below we list four dimensions — structure, context, the adult work environment, and safety — that research has shown to be *necessary* for quality child care to occur *but not sufficient* in and of themselves. After a brief discussion of these four dimensions we present what we consider to be the most critical aspect of quality — that is, process quality.

Structural dimensions of quality include a number of quantitative, easily observed features. These include group size, adult:child ratios, and the availability, size and accessibility of indoor and outdoor play space. These factors, along with others such as staff levels of early childhood care and education (ECCE) training, lend themselves to government regulation and monitoring. This dimension, like safety and basic care, helps to support and frame quality child care programs but does not, in and of itself, ensure quality in child care. Structural dimensions are seen as minimal thresholds for quality.

Contextual dimensions of quality are factors outside the individual classroom that influence what goes on inside the room. These include, for example, the centre's auspice, its administrative structure, annual teaching staff turnover rate, and the centre's policies and practices. The centre is embedded in and influenced by what is going on both in its own community and by policies, practices and events in the province or territory in which it is located. In turn, the community and the province/territory are embedded in the larger society and are influenced by societal attitudes, values and goals.

Adult work environment dimensions of quality include factors such as wage level, benefits, collegial support, recognition of staff needs such as a place to store their personal belongings, and opportunities for professional development. When child care staff are valued, validated and acknowledged, as reflected by factors such as higher wages and high levels of support from the director and co-workers, turnover is lower [23] and the quality of care is higher.[24]

Safety and basic care dimensions are fundamental to — but not identical with — quality child care. Quality child care programs must be built upon a foundation that ensures the physical, emotional, and nutritional health and well-being of every child. Adults providing this care must be sensitive and responsive to children's needs. A recent Canadian study[25] found that caregivers' affectionate behaviour was linked to caregiver experience, training, well-being and self-esteem. Recent brain research[26] has found that the emotional tone of adult-child interactions was a strong predictor of certain biochemical reactions in the brain. For example, babies who were exposed to caregiving that was characterized as cold, distant and disorganized showed significantly elevated levels of cortisol which is associated with the "dampening" of higher-level brain functioning.[27] The researcher concluded that "these data strongly suggest that sensitive, responsive, secure caretaking plays an important role in buffering or blocking elevations in cortisol for infants and young children."[28]

Quality cannot occur without the dimension of safety and basic care. Yet, as we argue below, if the child care program is limited to this one dimension, which is often referred to as custodial care, it cannot be considered quality care.

Process quality. The interplay of the above four dimensions provides a basic scaffolding upon which a quality child care program can be implemented. None of these dimensions, however, reflects what is frequently referred to as *process quality*, the nature of the child's daily experience, especially the daily interactions between the child and the teacher and among the children themselves. Process quality occurs when the children are engaged in developmentally appropriate activities and interactions in a supportive physical and human environment. While having wonderful learning materials in a child care room is of critical importance, it is of greater importance that the adults in that room provide a dynamic "lived experience" in which the children use a variety of stimulating materials to help facilitate their intellectual, language, social, emotional and physical growth. The use of developmentally appropriate learning and

exploration activities is supported by a physical environment that is well organized and well implemented and supports children's independent learning. High reliance on teacher-directed activities rather than learning through play and exploration is associated with higher levels of stress behaviours while in the program[29] and poorer child outcomes at the end of elementary school.[30]

More than twenty years of research have demonstrated the association between process quality and children's well-being and development. The type of interactions between the teacher and the children appears to be particularly crucial.[31]

1.3 The Goals of the Study

While a number of local and relatively small-scale research projects have examined quality in Canadian child care centres,[32] no study has systematically examined a wide range of different variables in different jurisdictions using the same sampling, methodology and instrumentation. This was a major goal of the present study. Specifically, the main goals of this study were:

1. To obtain a detailed profile of the current range of process quality (the child's daily experience) in a sample of Canadian child care centres.

2. To explore the association between process quality and structural elements such as teachers' formal education and training in ECCE and the ratio of children to adults in observed classrooms.

3. To explore the association between process quality and contextual elements such as auspice, organizational climate, and provincial/territorial government regulations, policies and practices.

This report describes the observed process quality in infant/toddler and preschool classrooms in Alberta, British Columbia, New Brunswick, Ontario, Québec, Saskatchewan and the Yukon. It also uses information collected about the centres and personal information provided by centre directors and teaching staff to discuss the associations between process quality and the structural, contextual and adult work environment dimensions of the programs. In addition, the report identifies those structural, contextual and work-environment dimensions that predict quality.

1.4 Child Care Policies in the Seven Jurisdictions in Study 2

All Canadian jurisdictions require centres to be licensed in order to operate and licensing is conditional upon conforming to the provincial/territorial child care regulations. At the time of the data collection in 1998, these regulations covered safety and health practices for the physical setting, the child-to-teacher ratio, the maximum group size and, with the exception of New Brunswick and the Northwest Territories, minimum ECCE education requirements for teaching staff. As illustrated in Appendix A, there was considerable variation in provincial/territorial requirements, particularly those pertaining to ECCE education. The stated frequency of monitoring for compliance also varied. Three of the provinces involved in the study required that parents of children currently enrolled constitute a certain percentage of the board members of non-profit centres (New Brunswick required 25%, Québec and Saskatchewan both required 51%). Québec and

Saskatchewan required commercial centres to have a parent advisory committee.[33] Parent involvement was not stipulated in the other jurisdictions involved in the study.

In 1998, all the provinces and territories had a fee subsidy program for low-income families. Fee subsidy was available to both non-profit and commercial centres in all jurisdictions involved in the study except Saskatchewan. That province limits the availability of fee subsidy to non-profit centres.[34] Recurring government operating grants were available in all the jurisdictions in the study except New Brunswick. As illustrated in Appendix B, the amount of these grants varied considerably. In addition, some or all provincial recurring grants were restricted to non-profit centres in Ontario, Québec and Saskatchewan.

1.5 What Child Care Regulations Can and Cannot Do

Regulations cannot guarantee process quality. However, they can establish a framework within which the day-to-day experiences that support children's well-being and development can occur. Being responsible for a reasonable number of children, given their developmental level, allows the teacher to provide individualized attention. Several studies report a correlation between group size and/or adult:child ratio and the extent of positive interactions between teachers and children and/or child outcomes.[35] Specialized early childhood education provides the teacher with knowledge about children's developmental stages and the types of activities that are appropriate for different developmental levels. A recent study combined the data from two pieces of research that, together, involved 550 centres and 1,055 classrooms. The study reports that teachers with a B.A. in ECCE obtained the highest scores on both sensitivity and responsiveness. Teachers with a college ECCE credential were ranked higher on these behaviours than those with only some ECCE courses, but not a credential, and higher than teachers without ECCE training.[36]

Two multi-state U.S. studies illustrate the importance of the level of the regulations. The first looked at process quality in 227 centres across five states chosen to represent a range from the most stringent regulations to the most lax for ratio, group size and teacher ECCE education level. It reports an association between the relative ranking of the strictness of the regulations and process quality in both infant/toddler and preschool rooms.[37] A second study, involving four states not used in the other study, and 200 centres, found that process quality was higher in the states with the more stringent child care regulations.[38] Children from centres in the state with the least stringent regulations obtained the lowest mean scores on measures of cognitive, pre-reading and pre-mathematical skills, while children from the state with the strictest regulations tended to score highest.[39]

Smaller studies in Canada have obtained similar results. A study conducted in the four Atlantic provinces found that the provincial mean total score on the *Early Childhood Environment Rating Scale*[40] was highest in the province with the highest ECCE education requirement for teaching staff.[41] Both the *Infant/Toddler Environment Rating Scale (ITERS)*[42] and the *Early Childhood Environment Rating Scale (ECERS)* have been used in other province-specific studies. A 1996 report examined the findings of these previous studies.[43] The research covered studies conducted in Alberta and Ontario using the *ITERS* and in British Columbia and Ontario using the *ECERS.* At the time of data collection,

Alberta had no ECCE education requirements for teaching staff, British Columbia required each group of preschool children to have one person with at least 10 months of ECCE training, and Ontario required one staff person with each group to have a two-year ECCE diploma or equivalent.[44] The median total provincial score on the *ITERS* in Alberta was 4.19 while in Ontario it was 5.66. The median total provincial score on the *ECERS* in British Columbia was 5.09 while it was 5.29 in Ontario.[45]

1.6 The Importance of Funding

On the basis of data on wages, benefits, staff educational levels in ECCE and staff turnover in 277 centres plus observations using the *ITERS* and *ECERS*, the U.S. *National Child Care Staffing Study* concluded that "better quality centers paid higher wages, had more teachers caring for fewer children, employed better educated and trained staff, had lower staff turnover and better adult work environments."[46]

This conclusion points to the importance of having the funds to pay decent salaries that will attract and retain well-educated staff. As found in the first study of the *You Bet I Care!* project, Canadian child care centres are heavily dependent upon parent fees for their revenue.[47] These fees have to be kept at a level that parents can afford in order for the centre to fill its spaces and remain financially viable. In Canada, teaching staff salaries represent 75% of the average centre's expenditures. As has been demonstrated by a group of economists in the United States, centres are only able to curtail the fees they charge parents because they pay low staff salaries.[48]

The multi-state *CQO* study found that centres with specific characteristics typically had higher than average process quality ratings. First, the researchers note, "A major characteristic these centers share is that they have access to extra resources which they use to improve quality."[49] Second, and as a result of the access to extra resources, the centres "are less dependent on parent fees than other centres." They "pay higher wages and provide more staff benefits, they have higher staff:child ratios, and teachers have more education, more specialized training, and longer tenure at the centres."[50] The extra resources referred to were government grants over and above fee subsidy for low-income families or donated space and utilities. In Canada, expenditures on rent or mortgage and utilities typically account for 15.6% of the average centre's expenditures.[51] Therefore, donated space and utilities are a valuable resource, a resource that is only available to 14.1% of centres.[52]

1.7 Definitions

A centre was deemed eligible to participate in Study 2 if it offered care for at least six consecutive hours a day for children between birth and age six. On-reserve centres providing care for this age range were excluded, as were all centres that had been in operation for less than 12 months.

In Canada, centres operate under one of three auspice types:

- ***non-profit**:* centres operated by parents, a voluntary board of directors, or a non-profit organization such as the YM/YWCA, a college, university or school board;

- ***commercial**:* centres that are private businesses operated by an individual, a partnership or a corporation; and
- ***municipal:*** centres operated by municipal governments.

Only non-profit and commercial centres were included in Study 2 because Ontario is the only province with municipal centres and these are relatively few in number.

Eligible staff were those in an eligible centre who worked at least 30 hours a week at the centre, had been employed by the centre for at least 12 months, and were working with children under age six. Part-time staff, casual and substitute teachers, volunteers and students were excluded. Since different terminology is used in different jurisdictions, participating teaching staff were asked to use the following definitions when identifying their current position:

- ***assistant teacher:*** a person who works with children under the direction of another teacher;
- ***teacher:*** a person who has primary responsibility for a group of children; this person may also have supervisory responsibility for assistant teachers; and
- ***supervisor:*** a person who has primary responsibility for a group of children and has supervisory responsibility for teachers.

The term **"*site coordinator*"** refers to the project staff person in each province or territory who was responsible for contacting and recruiting child care centres, sending out questionnaires, and scheduling site visits by the project ***"observers"*** who visited the centres and conducted the on-site observations.

A glossary is provided at the end of this report.

1.8 How the Findings are Presented

This report provides information for the sample as a whole and, where appropriate, by province and territory, by position (using the definitions given above) and by auspice. The entire observed sample is presented in Table 1.1 broken down by jurisdiction (province or territory), auspice and teaching position. Table 1.2 shows the breakdown by jurisdiction and by the observed age group.

1.8a Reporting by Province and Territory

Observations were conducted in both infant/toddler and preschool classrooms in each of the seven participating jurisdictions (Alberta, British Columbia, New Brunswick, Ontario, Québec, Saskatchewan and the Yukon). To facilitate collection of the observations, groups of centres were obtained from one or two specific communities, depending on the jurisdiction. These communities and centres may not be representative of the province or territory as a whole. This consideration is particularly relevant to the Yukon where all the centres were located in Whitehorse, the largest urban area in the territory. While the provincial and territorial data may provide interesting descriptive information on those jurisdictions, they cannot be seen as definitive or representative of those provinces or territories. The lack of a random sample and the relatively small sample size of each jurisdiction precludes the possibility of conducting meaningful within-province or territory analyses.

Table 1.1

Observed Sample by Jurisdiction, Auspice and Teaching Position

Jurisdiction	Auspice	Teaching Position			Total
		Assist. Teacher	Teacher	Supervisor	
British Columbia	Non-profit	8	15	12	35
	Commercial	3	1	3	7
	Total	11	16	15	42
Alberta	Non-profit	2	15	12	29
	Commercial	2	10	8	20
	Total	4	25	20	49
Saskatchewan	Non-profit	12	22	11	45
	Commercial	0	0	0	0
	Total	12	22	11	45
Ontario	Non-profit	1	28	4	33
	Commercial	1	16	7	24
	Total	2	44	11	57
Québec	Non-profit	0	42	0	42
	Commercial	0	5	1	6
	Total	0	47	1	48
New Brunswick	Non-profit	0	23	6	29
	Commercial	1	18	8	27
	Total	1	41	14	56
Yukon	Non-profit	1	12	1	14
	Commercial	0	6	1	7
	Total	1	18	2	21
ALL JURISDICTIONS	Non-profit	24	157	46	227
	Commercial	7	56	28	91
	Total	31	213	74	318

Table 1.2		
Observed Sample by Jurisdiction and Observed Age Group		
Jurisdiction	**Infant/Toddler Rooms**	**Preschool rooms**
British Columbia	19	23
Alberta	13	35
Saskatchewan	17	29
Ontario	19	38
Québec	16	32
New Brunswick	21	35
Yukon	9	12
TOTAL	**114**	**204**

1.8b Reporting by Auspice

Observations were conducted in both non-profit and commercial programs. However, there were considerably more non-profit than commercial centres in the total sample (68.3% and 31.7% respectively). No commercial centres were observed in Saskatchewan and fewer than a quarter of the centres were commercial in British Columbia, Québec and the Yukon. Therefore, auspice comparisons in this report are restricted to the total sample.

1.8c Reporting by Position

Observations were conducted in both infant/toddler and preschool rooms in each jurisdiction. In most jurisdictions, teaching staff observed included one or more assistant teachers, one or more teachers, and one or more supervisors. The lack of observations or small number of observations on assistant teachers and supervisors at the level of individual jurisdiction makes it inappropriate to report data on these two positions by province or territory. The same problem of small sample at the provincial/territorial level exists for observations on teachers in infant/toddler rooms. Therefore, we will only report observational findings by position for the total sample.

1.9 How This Report is Organized

- **Chapter 2** provides information on the data collection instruments used in this study, both questionnaires and observation tools; observer training and inter-rater agreement levels; methods used for data collection; data coding and cleaning; and data analysis.

- **Chapter 3** provides descriptive information on the method of sample selection, the nature of the Study 2 sample, a comparison of the Study 1 and Study 2 samples, and a comparison of the observed and non-observed staff in Study 2.

- **Chapter 4** presents the descriptive information obtained through the observation instruments used in the study. Means, ranges and standard deviations are presented, as are correlations among these variables.

- **Chapter 5** identifies those variables that were found to predict child care quality in the seven jurisdictions in the study.

- **Chapter 6** discusses the implications of the study results for policy, practice and future research. A set of recommendations is presented.

Notes

1 Doherty et al. 2000.
2 Doherty et al. (in press).
3 Beach, Bertrand and Cleveland 1998, Table 1.
4 For a more detailed discussion of this research, see Doherty 2000.
5 For example, Gunnar 1998.
6 Belsky and Steinberg 1978.
7 Peisner-Feinberg et al. 1999.
8 NICHD Early Child Care Research Network 1994.
9 Peisner-Feinberg and Burchinal 1997, Table 3; Vandell 1999, p. 5.
10 Vandell 1999, p. 5.
11 Clarke-Stewart 1999, Table 5; Peisner-Feinberg and Burchinal 1997, Table 3.
12 Ibid.
13 Goelman and Pence 1988.
14 Holloway and Reichhart-Erikson 1988; Howes, 1990; Howes and Rubenstein 1985.
15 Peisner-Feinberg and Burchinal 1997, p. 451
16 Alexander and Entwisle 1988; Horn and Packard 1985; Kontos 1988; Tremblay et al. 1992.
17 Peisner-Feinberg et al. 1999, pp. 7-8.
18 Ibid., p. 10.
19 Jacobs, Selig and White 1992.
20 Broberg et al. 1997.
21 Howes 1988, 1990; Vandell, Henderson and Wilson 1988.
22 Bronfenbrenner 1979; Bronfenbrenner and Morris 1998.
23 Helburn 1995; Whitebook, Howes and Phillips 1990.
24 Ibid.
25 Mill and Romano-White 1999.
26 Gunnar 1998.
27 Ibid., p. 209.
28 Ibid., p. 211.
29 Burts et al. 1992; Love 1993.
30 Miller and Bizzell 1983; Schweinhart, Weikart and Larner 1986.
31 Clarke-Stewart 1999; Helburn 1995; Holloway and Reichhart-Erikson 1988; Howes et al. 1988; Howes and Galinsky 1995; Howes and Hamilton 1992; Howes and Smith 1995; Phillips, McCartney and Scarr 1987; Whitebook, Howes and Phillips 1990.
32 Goelman and Pence 1987; Lyon and Canning 1995; White, Jacobs and Schliecker 1988.
33 Childcare Resource and Research Unit 2000.
34 Ibid.
35 Howes 1983, 1997; Howes and Rubenstein 1985; NICHD Early Child Care Research Network 1996; Ruopp et al. 1979; Whitebook, Howes and Phillips 1990.
36 Howes 1997, p. 404.

37 Phillips, Howes and Whitebook 1992a, pp. 37-38.
38 Phillipsen et al. 1997, p. 281.
39 Helburn 1995, p. 201.
40 Harms and Clifford 1980.
41 Lyon and Canning 1995, Table 3-1.
42 Harms and Clifford 1990.
43 Doherty and Stuart 1996.
44 Childcare Resource and Research Unit 1994.
45 Doherty and Stuart 1996, Tables 2.1 and 2.2.
46 Whitebook, Howes and Phillips 1990, p. 112.
47 Doherty et al. 2000, Table 10.1.
48 Culkin, Morris and Helburn 1991, Table 3.
49 Helburn 1995, p. 321.
50 Ibid.
51 Doherty et al. 2000, Table 10.10.
52 Ibid., Table 10.8.

Chapter 2

The Questionnaires and Observations

2.1 Introduction

This chapter provides information about the data collection instruments, the methods used for data collection, data coding and cleaning, and the approach used for data analyses.

2.2 Survey Instruments

Study 2 used the same three questionnaires as Study 1. The Centre Questionnaire covered a range of topics in eight major sections: (1) the children enrolled; (2) the centre's financial organization; (3) the centre's staff complement; (4) changes in centre policies and practices over the past three years; (5) the highest and lowest wages paid to staff in various positions; (6) the benefits available to staff; (7) turnover patterns and current staff vacancies; and (8) the most pressing problems experienced by the centre in the year preceding data collection (see Appendix C).

The Staff Questionnaire covered a range of topics in nine major sections: (1) child care experience; (2) wages, benefits and working conditions; (3) formal education; (4) participation in professional development activities in the previous 12 months; (5) involvement in other paid work; (6) feelings about the centre; (7) feelings about the child care field; (8) personal demographic information; and (9) views about what would make child care a more satisfying work environment (see Appendix D).

The Director Questionnaire had the same major sections as the Staff Questionnaire, except for the section related to wages, benefits and working conditions. In addition, the Director Questionnaire included some specific exploration of the respondent's perception of opportunities for lateral moves to a new job with equal status in the child care field (see Appendix E).

Both open- and closed-ended questions were used in all three questionnaires. Closed-ended questions included, where appropriate, the options "don't know" or "not applicable."

2.3 Pilot Tests of the Survey Instruments

Prior to their use in Study 1, the draft English and French versions of the Centre, Director and Staff Questionnaires were circulated for pre-testing in Alberta, British Columbia, Manitoba, Ontario, New Brunswick and Québec. Directors and staff from a total of 15 centres, three of which were francophone, were involved. Prior to mailing the draft material, each centre director was telephoned by an anglophone or francophone Principal Investigator, who explained the purpose of the pre-test and the need to be as specific as possible when responding with written comments. Follow-up telephone calls were conducted with 11 centre directors to explore further their own or their teachers' written comments. In addition, written comments supplemented by telephone discussion were obtained from four other knowledgeable field people.[1] Many of the suggestions made by people involved in the pre-test were incorporated into the final version of these three questionnaires.

2.4 Observation Instruments

Three measures of child care quality were used: the *Caregiver Interaction Scale,*[2] the *Infant/Toddler Environment Rating Scale*,[3] and the *Early Childhood Environment Rating Scale–Revised Edition*.[4]

2.4a The Caregiver Interaction Scale

The *Caregiver Interaction Scale (CIS)*[5] was used in this study as a means of gathering information on the affective or caregiving tone of the adult-child interactions in the child care room. The *CIS* has been used in other studies to assess three specific dimensions of teacher affect.[6] The first sub-scale of the *CIS* focuses on a teacher's *sensitivity*, which is defined as teacher behaviour that is warm, attentive and engaged. The second sub-scale focuses on the teacher's level of *harshness*, the extent to which the teacher demonstrates critical, threatening or punitive behaviour. The third sub-scale is *detachment*, or low levels of interaction and supervision by the teacher. The three sub-scales involve a total of 26 behaviour descriptions. Each description is ranked on the extent to which it mirrors the teacher's behaviour, using the following four-point scale: "not at all," "somewhat," "quite a bit," and "very much." The *CIS* is presented in Appendix F. Scoring is based on observation and, in the present study, was done after the observer had spent a morning or afternoon observing for the *ITERS* or *ECERS–R.*

The validity of the *CIS* is indicated by research reporting that scores obtained on this scale predict children's language development and attachment security.[7] Reported inter-rater reliability in two large U.S. multi-state studies ranged between 89% and 95%, depending on the sub-scale.[8]

2.4b The Infant/Toddler Environment Rating Scale

The *Infant/Toddler Environment Rating Scale* (*ITERS*) has been widely used in previous research for groups where all or the majority of the children are under age 30 months.[9] The *ITERS* is completed on an individual classroom and taps a variety of dimensions of quality including aspects of structure, resources, classroom organization and teacher-child interactions.

The *ITERS* ranks 35 aspects of a program using seven categories: (1) furnishings and display for children; (2) personal care routines; (3) listening and talking; (4) learning activities, (5) interaction; (6) program structure; and (7) adult needs. There is an additional sub-scale for use in rooms that have one or more children with special needs. Each item is presented as a seven-point scale with quality descriptors under one (inadequate), three (minimal), five (good), and seven (excellent). Scoring is based on observation and on answers to questions about any aspects of the program that were not observed during the visit.

The validity of the *ITERS* has been substantiated in three ways:[10]

- First, by comparing categorizations of 12 programs as high or low quality as measured by the *ITERS* and by expert evaluation. There was an agreement level of 83%;
- Second, by having the importance of each item for quality rated by five experts. This resulted in 86% of the items being rated as of "high importance";
- Third, by doing an item-by-item comparison of the *ITERS* with seven other instruments used to assess the quality of infant/toddler rooms. Overall, an average of 82% of the *ITERS* items was included in the other instruments. There was 97% agreement between the *ITERS* and the *Criteria for High Quality Early Childhood Programs* developed by the National Association for the Education of Young Children (NAEYC).[11]

In an inter-rater reliability study conducted in 30 classrooms, two independent ratings were obtained and compared, giving a rank order correlation of 84% for the total scale.[12] Comparable inter-rater reliability levels have since been reported in other studies.[13] A test-retest of reliability with a three- to four-week interval in 18 rooms yielded a total scale score correlation of 79%.[14]

2.4c The Early Childhood Environment Rating Scale–Revised Edition

The original *Early Childhood Environment Rating Scale (ECERS)* has also been widely used by researchers in both Canada[15] and the United States.[16] The *Early Childhood Environment Rating Scale–Revised Edition (ECERS–R)* is considered by its authors to be "a revision of the *ECERS*; it is not a new scale. The same general rationale and underlying constructs are evident in this revision."[17] The *ECERS–R* ranks 43 aspects of a program using seven categories: (1) space and furnishings; (2) personal care routines; (3) language-reasoning; (4) activities; (5) interaction; (6) program structure; and (7) parents and staff. Much of the same content that was in the *ECERS* is covered in the *ECERS–R*. New items include areas such as health and safety practices, discipline practices, the tone of interactions between teachers and children, and interactions among children. Indicators and examples have been added to many items to enable scoring that takes into account inclusionary practices with children who have special needs and sensitivity to cultural diversity. The *ECERS–R* retains the same format as the *ECERS* with each item presented as a seven-point scale with quality descriptors under one (inadequate), three (minimal), five (good) and seven (excellent). Scoring is based on observation and on answers to questions about any aspects of the program that were not observed during the visit.

The authors note that the *ECERS–R*, being a revision of the *ECERS*, "would be expected to maintain" its validity.[18] The validity of the *ECERS* has been substantiated in three ways:[19]

- First, by having the importance of each item for quality rated by seven experts. This resulted in 78% of the items being ranked as of "high importance";
- Second, by comparing the total score on the *ECERS* in classrooms with an assessment of their relative quality by experts. There was an agreement level of 74%;

- Third, by the evidence from research studies documenting the relationship between *ECERS* scores and both child outcomes and teacher behaviours;[20]
- Fourth, by the ability of the *ECERS* to discriminate between programs considered by licensing officials to be problematic or not problematic.[21]

In an inter-rater reliability study of the *ECERS–R* in 21 rooms, two independent ratings were obtained and compared, giving a rank order correlation of 86% for the total scale score.[22]

2.5 Observer Training and Inter-Rater Agreement Levels

All the site coordinators had a minimum of a two-year ECCE credential and post-graduate experience in centre-based care. Each observer had a minimum of a one-year ECCE credential and also had post-graduate working experience in a centre. Before attending the observer training, each person was required to have done a practice observation within the previous month, using each of the *ITERS* and the *ECERS–R*. The scoring sheets from these practices were used at the beginning of the formal part of the four-day training to identify items that people had found difficult to score. During training, the participants used training video tapes to do a practice observation at the training site on each of the *ITERS* and the *ECERS–R,* and on the *CIS.*[23] Then, in teams of two, they did at least one field observation using the *ECERS–R* and the *CIS,* and one using the *ITERS* and the *CIS.* The observations were followed in each case by a debriefing with the trainer and calculation of inter-rater agreement levels.

People with an inter-rater agreement level of less than 85% on any of the three instruments were required to do additional field observations until they attained the 85% level. Data collection started when everyone had attained the required inter-rater agreement levels. Each site coordinator did a parallel observation with each observer in her jurisdiction on the observer's fifth or sixth administration of each of the *ITERS*, *ECERS–R* and *CIS.*[24] At the time of the within-data collection check, one person obtained an inter-rater agreement level of 81% on the *ECERS–R*. She was given additional instruction, after which she successfully attained the required level of 85%. The inter-rater agreement among the other observers at the time of the second check ranged between 86% and 98% on the *ITERS*, 86% and 98% on the *ECERS–R*, and 85% and 100% on the *CIS.*

2.6 Data Collection

The selection and recruitment of centres that were willing to participate and of teachers who were willing to be observed began in September 1998, and data collection was complete by mid-December 1998. All directors of eligible centres who agreed to participate were sent a package containing: (1) a letter of thanks that also explained what to do with the other items in the package and provided a contact name and toll-free telephone number; (2) a brief written description of the study; (3) a Centre Questionnaire, a Director's Questionnaire, and sufficient Staff Questionnaires for all eligible teachers; (4) stamped return envelopes for the Centre and Director Questionnaires and each Staff Questionnaire, and (5) a consent form to be signed by the appropriate person on behalf of the centre and consent forms to be signed by the teachers who would be observed. No observations were done without both a signed centre consent and a signed consent from the teacher.

The centre director was asked to complete both the Centre and the Director Questionnaires. Permanent teaching staff who were working with children between birth and age six, were employed at the centre for at least 30 hours a week, and had worked in the program for at least 12 months were asked to complete a Staff Questionnaire. Measures were taken to ensure confidentiality for participants. Each questionnaire had a bar code and participants were not asked to provide their name on the questionnaire. In addition, each participant

was provided with a stamped return envelope, with the exception of the teacher being observed, who was asked instead to give her completed questionnaire to the observer when the latter visited the centre. This enabled the observer to know that a Staff Questionnaire had been completed by the teacher to be observed and also allowed for later linking of that questionnaire, by means of a code, to the individual's observation data.

Selection of the teacher(s) to be observed was done by the centre director within the following parameters: the person had to be working in an infant/toddler or preschool room, to be employed for at least 30 hours a week, and to have worked at the centre for at least 12 months. Consideration was given to attempting a random selection of a teacher to be observed, based on the above criteria. However, this would have required obtaining a list of all staff and their starting dates from each centre, a request that might not have been acceptable to some centres. An alternative would have been to ask the director to select the "x" person on an alphabetical staff list, but ensuring that this procedure had been followed would have been difficult.

Two weeks prior to the scheduled observation date, a letter was sent to the centre director reminding her/him of the observation time, providing the name of the observer and reiterating the need to have both centre and teacher consent forms signed. The time for the observation was confirmed again by telephone on the day before the appointed time. Observers spent between three and four hours at the centre. Observations in francophone centres were done by francophones using French translations of the data collection instruments. Before leaving the centre, the observer ensured that she had written the centre identification code and the teacher identification code on the various forms.

The site coordinators kept a log of returned questionnaires. If a Centre and/or Director Questionnaire had not been returned before the observation, the observer was asked to remind the director to complete these. One or more subsequent reminders were given by telephone where required.

Just before the observation a brief interview was conducted with teachers who were observed; this was used to obtain information about the age range of the children in the room and whether there were children who had special needs. A second brief interview after the observation, if such was required, was used to obtain information on aspects of the program not observed but about which information was required for completion of the *ITERS* or *ECERS–R*.

2.7 Data Coding and Cleaning

For the most part, the three questionnaires required the respondent to fill in a circle beside the appropriate response(s). Coders checked for extraneous marks and for circles that were not adequately filled in, and took corrective action as needed. Open-ended questions were coded using the same codes as in Study 1. The codes for the open-ended questions were transposed into "for office use only" circles on the questionnaires, for later computer scanning. Inter-coder consistency was periodically checked by having two coders code the same questionnaire.

The majority of the responses were scanned into data files. The remaining responses were entered manually. The actual questionnaires were manually checked for cases of logical inconsistencies and unusual responses. When such were found, the data were checked against the range and/or average for the question in the jurisdiction concerned, and/or the actual questionnaire was examined to determine if answers to other questions could be used to ensure consistency across related questions.

The *ITERS* and *ECERS–R* have a single score for each item, which in turn allows for the development of sub-scale scores and a total scale score. Different items on the *CIS* are combined to provide three sub-scale

scores, one for each of Sensitivity, Harshness and Detachment. Data from the observation forms were checked for completeness and accuracy and were entered into the computer by staff of the Applied Research and Evaluation Services (ARES) at the University of British Columbia. Where apparent anomalies or inconsistencies were found, the original data protocols were consulted and appropriate corrections made to the data entry forms. Special attention was paid to the nuances involved in using materials in both English and French to ensure consistency across both languages.

2.8 Missing Data

Responses to questions on the questionnaires were sometimes left blank. On occasion, it was possible to estimate or impute a value to such a question, based on replies to another question in the same questionnaire. This was done, for example, in analyses of the number of teaching staff where reports of the number of male and female teaching staff could substitute for a missing response to the question about the total number of staff. However, in most cases, non-responses were simply coded as missing. The results reported in this document reflect valid responses.

2.9 Data Analysis

Detailed descriptions of the statistical analyses are found in both Chapters 4 and 5. In brief, data were analyzed using the SPSS-X Program for Windows™. Descriptive data including means, ranges, medians, modes, standard deviations and frequencies were generated first. The next step of descriptive analysis consisted of correlational analyses in which relationships were explored among the observational variables and relevant items from the Centre, Director and Staff Questionnaires. As described in Chapter 5, two different techniques were used to identify those key variables that predicted the quality of child care programs based primarily on their scores on the *ITERS* and *ECERS–R.*

Notes

1 Karen Chandler, Jamie Kass, Martha Friendly and Laurel Rothman.
2 Arnett 1989.
3 Harms and Clifford 1990.
4 Harms, Clifford and Cryer 1998.
5 Arnett 1989.
6 Helburn 1995; Whitebook, Howes and Phillips 1990.
7 Whitebook, Howes and Phillips 1990.
8 Helburn 1995; Whitebook, Howes and Phillips 1990.
9 For example, Doherty and Stuart 1996; Helburn 1995; Whitebook, Howes and Phillips 1990.
10 Harms and Clifford 1990.
11 National Academy of Early Childhood Programs 1984.
12 Harms and Clifford 1990.
13 Doherty and Stuart 1996; Helburn 1995; Whitebook, Howes and Phillips 1990.
14 Harms and Clifford 1990.
15 Doherty and Stuart 1996; Friesen 1995; Goelman and Pence 1988; Schliecker, White and Jacobs 1991; White, Jacobs and Schliecker 1988.
16 Helburn 1995; Kontos and Stremmel 1988; McCartney et al. 1982; Whitebook, Howes and Phillips 1990.
17 Harms, Clifford and Cryer 1998, p. 1.
18 Ibid., p. 2.
19 Helburn 1995, p. 41.
20 Harms and Clifford 1983; Goelman and Pence 1987; McCartney et al. 1997; Whitebook, Howes and Phillips 1990.
21 Doherty 1995.
22 Harms, Clifford and Cryer 1998, p. 3.
23 The observers' training in Québec was done separately and in French. Because no French version of the training video was available, the Québec session did not use a video tape for a practice observation at the training site.
24 In Québec, the parallel administration was done by the trainer.

Chapter 3

The Sample of Centres, Staff and Directors

3.1 Introduction

This chapter provides information about the sample of child care centres, staff and directors who participated in this study. It begins with a description of the methods that were used to identify and recruit centres and staff. The sample of centres is described within and across jurisdictions, and is broken down by non-profit and commercial auspices. The centre sample in Study 2 is compared to the sample from Study 1 of the *You Bet I Care!* project, reported in *You Bet I Care: A Canada-Wide Study on Wages, Working Conditions and Practices in Child Care Centres*.[1]

The child care staff who participated in Study 2 are described in terms of their teaching position, the auspice of their centre, the province in which they work, and their overall and ECCE-specific education levels. The staff sample from the six provinces and one territory in Study 2 is compared to the staff sample from those same jurisdictions in Study 1. Comparisons are also made between those staff in Study 2 who participated in the observation component of the study and those who did not. One innovative aspect of this study was the inclusion of a wide range of variables drawn from three questionnaires and three observational instruments. This allowed a full exploration of the relationships among many variables not often available in a single study.

3.2 The Sampling Frame

Each of the provincial/territorial child care authorities provided the most current list of their child care centres just prior to the commencement of Study 1 of the *You Bet I Care!* project.[2] The information had been compiled between September and December 1997. These lists included the name, address and telephone number for each centre, its auspice (non-profit, commercial or municipal), the age of the children served, whether the centre provided a full-day program (at least six consecutive hours), and its total licensed capacity.

The sampling frame was developed by first deleting all centres on the provincial/territorial lists that did not serve children between birth and age six, and those centres that did not operate for at least six consecutive hours a day. Then, where it was possible to identify multi-site centres within a jurisdiction, all but one of these sites were removed from the list. This was done on the assumption that different sites under the same director, or operated by the same person or organization, would have the same salary scales, benefits and personnel policies. The third amendment to the lists involved removing the 15 centres that had pre-tested the questionnaires used to collect information about salary levels, benefits, personnel policies and so on.

3.3 Identifying the Target Sample

Conducting an in-depth analysis of child care quality within and across different Canadian jurisdictions presents many serious challenges including, but not limited to, the following:

- obtaining a sample of sufficient size to permit appropriate statistical analyses;
- geographical distance within and across jurisdictions;
- differing numbers of centres in different jurisdictions;
- different proportions of non-profit and commercial centres in different jurisdictions;
- different licensing, regulatory and training requirements in different jurisdictions;
- possible self-selection biases regarding which centres and staff agree to participate in the study, and which decline;
- the reluctance of some centres to permit on-site observations.

These challenges were addressed in a number of ways. Six specific provinces and one territory were selected for Study 2 to provide a sample that would be broadly representative of the diversity of centre-based child care in Canada. The jurisdictions were: Alberta, British Columbia, New Brunswick, Ontario, Québec, Saskatchewan and the Yukon. In addition to providing geographic representation, these jurisdictions represent various points along the continuum of government regulatory standards, government funding other than fee subsidization, and the relative proportion of non-profit and commercial centres within a jurisdiction. See Appendix A for information on regulations and Appendix B for information on government grants in each jurisdiction.

Table 3.1	
The Communities from which the Samples Were Drawn	
Jurisdiction	**Communities**
British Columbia	Abbotsford, Kelowna and Vancouver and surrounding areas
Alberta	Calgary; Edmonton; Medicine Hat; Red Deer
Saskatchewan	Moose Jaw; Prince Albert; Regina; Saskatoon
Ontario	The Brampton-Milton-Oakville triangle; Ottawa; Thunder Bay
Québec	Montreal and the south shore; Québec City and surrounding areas
New Brunswick	Fredericton, Saint John and Moncton and surrounding areas
Yukon	Whitehorse and immediate surrounding area

Before beginning the data collection for Study 1, 50 centres in each of the six provinces and 14 centres from the Yukon were reserved for Study 2, the subject of this report. Twenty-five commercial and 25 non-profit centres were reserved in each province (except Saskatchewan, where there were only two commercial centres, neither of which was reserved). In the Yukon, all the centres in Whitehorse and the immediate surrounding area were reserved. In each of the provinces, sites were selected in major cities and their suburbs and in mid-sized cities and their nearby rural communities. This clustering was done to minimize travel time and cost by having a trained observer actually resident in or near each target community. Table 3.1 identifies the communities from which centres were recruited.

3.4 Recruiting the Sample

In order to obtain a total sample size that would permit appropriate statistical analyses, the original intention was to recruit at least 40 centres from each province, half being commercial and half non-profit. The exceptions were in Saskatchewan, where all the centres in the sampling frame were non-profit, and in the Yukon, where all 14 centres in Whitehorse were invited to participate, regardless of auspice. Within each province, the goal was to recruit at least 40 preschool rooms and 20 infant/toddler rooms.

Three steps were taken prior to contacting the centres. First, approval of our proposed experimental procedures and data collection instruments was sought and received from the Behavioural Research Ethics Board of the University of British Columbia. This approval was accepted by the other two sponsoring universities. Second, in order to inform the field about the study a brief article on it was published in *Interaction*, the bilingual journal of the Canadian Child Care Federation.[3] Third, the provincial/territorial director or equivalent and the executive director of the provincial/territorial child care association were informed that the study was about to begin. They were requested to support the study and to encourage centres in their jurisdiction to participate.

The directors of each of the 50 provincial child care centres that had been reserved and each of the 14 child care centres reserved in the Yukon were sent a letter briefly explaining the project and informing them that they might be contacted by a person who was named in the letter. The letter also informed the directors that each participating centre would receive $50 for each room observed, a certificate of participation and a

summary of the key findings from the aggregate data. Approximately two weeks after mailing the letter, the site coordinator in each jurisdiction began telephoning centres to provide additional information about the study and to solicit participation. During the telephone conversation the directors were asked a series of standard questions to ensure that their centre met all the requirements for inclusion. All directors of eligible centres were asked to permit observation in one preschool room. If the centre also served infants/toddlers, directors were asked if they would also permit an observation in an infant/toddler room.

Site coordinators were instructed to continue to seek participants until they had at least 40 preschool rooms and 20 infant/toddler rooms, or had reached the cut-off date for obtaining the sample. The exception was the Yukon, where only 14 centres were contacted. In all the provinces the site coordinators ended up having to approach centres that were not in the original target group in order to obtain the desired sample size. When approaching new centres, a centre was sought that was of the same auspice as the centre that had refused. The same procedure of initial information letter and follow-up telephone call was also used. Nevertheless, the desired minimal size was not obtained in British Columbia or Québec. This was the result of high refusal rates and of centres that initially agreed to participate and then dropped out after the cut-off date for seeking participants. In most cases, dropping out occurred after the centre had received the questionnaire package but before the observation. However, in a few cases an observation was done and a completed Centre Questionnaire was never returned. These observations then became unusable and the centre was classified as having dropped out.

3.5 Participation and Refusal Rates

As illustrated in Table 3.2, 56.5% of the centres contacted initially by phone agreed to participate in the study. Of the 423 centres contacted, 239 centres agreed to participate in the study and 147 declined. An additional 37 centres had initially agreed to participate, but then decided against doing so. While the 239 participating centres were all included in data collection, it became apparent during data analysis that five of these centres were missing critical pieces of data. For this reason, all analyses were conducted on a total of 234 centres.

Both the total number of participating centres and the participation rates compare very favourably to other large-scale studies of child care quality. The *National Child Care Staffing Study,*[4] drawing on a much larger population base in five U.S. states, recruited 227 centres with an overall participation rate of 61.0%. The *Cost, Quality and Outcomes* study,[5] conducted in four U.S. states, recruited a total of 181 centres with an overall participation rate of 52.3%, which ranged from 32% to 59% depending upon the state.

As in any large-scale study across diverse settings that draws on self-selected samples, questions regarding the representativeness of the sample and the generalizability of the results to a broader population must be carefully considered in the analysis, reporting and interpretation of the data. The problem of self-selected participation in survey research is discussed at length in a recent text on research methodology in the social sciences,[6] which draws the following conclusion:

> "Volunteers are often different from non-volunteers in ways that may affect the results of your research. A variety of studies, for example, have shown that people who participate in social science research tend to be more highly educated, politically more liberal, less authoritarian, more in need of social approval, more intelligent and more interested in the issue being addressed."[7]

Table 3.2

Centre Sample, by Jurisdiction, Agreement and Refusals to Participate

Jurisdiction	Number of centres contacted	Number of centres that agreed to participate and stayed in the study	Number of centres that agreed to participate but then dropped out	Number of centres that refused to participate	Overall participation rate
British Columbia	69	30	6	33	43.5%
Alberta	81	41	8	32	50.6%
Saskatchewan	53	40	3	10	75.5%
Ontario	75	40	2	33	53.3%
Québec	71	36	14	21	50.7%
New Brunswick	60	40	3	17	66.6%
Yukon	14	12	1	1	85.7%
TOTAL	**423**	**239 (a)**	**37**	**147**	**56.5%**

Note: (a) The total of 239 centres were included in the original sample. During data analysis, however, it became apparent that five centres were missing critical pieces of data. For this reason, all analyses were conducted on a total of 234 centres.

The challenge of sampling in child care quality research is specifically discussed in the final report of the *National Child Care Staffing Study,* which examined child care quality in five U.S. states using similar sampling and data collection procedures:

> "Did our center sample represent the range of quality and center auspices that exist nation-wide? Because centers were not sampled randomly from the national population of day care centers, the results could not be expected to proportionately represent all of the different types and qualities of centers across the nation."[8]

Given the geographical, population and regulatory diversity from which our sample was selected, it is important to point out that the sampling was undertaken in order to provide sufficient numbers from a cross-section of child care centres within these jurisdictions. The sample of centres and staff used in Study 2, as we report below, was consistent with other available demographics on the population of child care centres in these jurisdictions at the time of data collection. Still, the self-selected nature of any sample must be considered with caution and common sense. For example, the *National Child Care Staffing Study* found in its initial telephone screening that centres which agreed to participate in the study tended to have more advantageous adult:child ratios, a statistic that often correlates highly with other indices of quality. Given some of the structural and conceptual similarities between that study and the one reported in this document, we think it wise to concur with the judgement of the *National Child Care Staffing Study* that these participating samples may not be perfectly representative of the broader population of child care

centres: "This suggests, that the final sample … may, on average, consist of higher quality centers than in the eligible population as a whole."[9]

The implications of the sample possibly reflecting a higher-than-average quality of child care are considered in detail in Chapter 6.

3.6 Characteristics of the Centre Sample

As noted above, of the 239 centres included in the original sample, five were dropped from data analysis due to missing data, leaving a balance of 234 child care centres in Study 2. Table 3.3 shows that 68.3% were non-profit; that is, operated by parents, a voluntary board of directors or a non-profit organization such as the YM/YWCA. The remaining 31.7% were from the commercial sector; these were private businesses operated by an individual, a partnership or a corporation. None of the centres in Study 2 was publicly operated by a municipality or other level of government.

Table 3.3

Key Characteristics of the Study 2 Centre Sample, by Auspice

Characteristic	Non-profit N = 155 (68.3%)	Commercial N = 72 (31.7%)	Total (a) N = 234 (100.0%)
Number of children enrolled, ages 0-2:			
Full-time	12.8	8.4	11.4
Part-time	4.9	4.0	4.6
Total	17.7	12.3	16.0
Number of children enrolled, ages 3-5:			
Full-time	18.6	17.8	18.3
Part-time	8.7	9.3	8.9
Total	27.3	27.1	27.3
Number of children enrolled, ages 0-5:			
Full-time	31.4	26.2	29.8
Part-time	15.7	13.2	13.5
Total	45.0	39.5	43.3
Number of staff:			
Full-time	8.4	7.5	8.1
Part-time	1.8	1.4	1.6
Total	10.2	8.8	9.8
Proportion of revenue by source:			
Parent fees	46.3%	63.0%	51.5%
Subsidies for low-income parents	29.2%	28.6%	29.1%
Wage enhancement grant	5.8%	2.0%	4.6%
Other government operating grants	13.2%	3.2%	10.1%

Characteristic	Non-profit N = 155 (68.3%)	Commercial N = 72 (31.7%)	Total (a) N = 234 (100.0%)
In-kind donations:			
Both free or subsidized rent and utilities	29.1%	0	19.7%
No in-kind donations	31.8%	72.2%	44.8%
Number of hours/month service by volunteers working directly with the children	25.9 hours	20.6 hours	24.4 hours
Centre had at least one student on placement within the past 12 months	83.9%	61.4%	76.9%
Proportion of annual budget spent on:			
Wages	81.6%	70.1%	79.1%
Benefits	9.6%	4.2%	8.0%
Rent/mortgage	5.5%	17.6%	9.2%
Utilities	3.2%	7.9%	4.6%
Highest hourly wage for full-time person:			
Assistant teacher	$9.82	$8.68	$9.40
Teacher or supervisor	$12.11	$9.23	$11.21
Teacher-director or head supervisor	$14.30	$10.95	$13.30
Administrative director	$17.19	$13.18	$16.40
Benefits, full-time teacher or supervisor position:			
Paid sick days per year	13.2 days	1.8 days	10.0 days
Maximum days of accumulated sick leave	11.1 days	2.2 days	8.2 days
Paid vacation days per year	14.2 days	8.5 days	12.4 days
All or part of dental coverage premium	69.9%	21.7%	55.7%
All or part of short-term disability premium	46.0%	16.1%	37.4%
All or part of long-term disability premium	57.1%	21.1%	46.7%
All or part of premium for extended health care	66.2%	20.3%	52.5%
All or part of premium for life insurance	67.9%	23.2%	55.1%
Proportion of teaching staff with at least a two-year ECCE credential working in the centre	62.2%	50.5%	58.6%
Benefits have increased within the past three years	30.7%	14.5%	25.7%

Note: (a) The Total number of centres is larger than the sum of the non-profit and commercial centres because seven centres included in the total did not specify their auspice.

As seen in Table 3.3, approximately half of all (non-profit and commercial) centre revenues (51.5%) were from parent fees, while 10.1% were accounted for by government operating grants. Over three-quarters (76.9%) of all participating centres served as student-teaching practicum sites. Overall, 79.1% of centre expenditures were accounted for by staff wages, and directors reported that over half of the people on their child care staffs (58.6%) had at least a two-year post-secondary teaching credential.

The data reveal different patterns of revenue and expenditures in non-profit and commercial centres. Non-profit centres in the sample obtained 19.0% of their revenue from government grants other than fee subsidy, in contrast to the 5.2% obtained from this source in the commercial sector. A larger proportion of

Table 3.4		
Comparison of Centre Sample from Study 1 and Study 2		
Variable	**Study 1 centres**	**Study 2 centres**
Auspice:		
Non-profit	63.1%	68.3%
Commercial	33.8%	31.7%
Municipal	3.1%	0.0%
Percentage of revenue by source:		
Parent fee	49.2%	51.5%
Fee subsidy	30.5%	29.1%
Other government grants	17.5%	14.7%
Own fund raising	1.9%	2.1%
Proportion of revenue used for wages	75.3%	79.1%
Proportion serving each age group:		
0-17 months	41.4%	54.4%
18 months-2 years, 11 months	87.1%	87.4%
3.0 years-4 years, 11 months	97.4%	95.0%

non-profit centres also received both free or subsidized rent and utilities. Non-profit centres spent a higher proportion of their budget on wages, 81.6% in comparison to 70.1% in the commercial sector. Salary levels for all positions were higher and benefits more generous in non-profit centres. A higher proportion of non-profit centres also reported that benefits had increased over the past three years (30.7% in comparison to 14.5%). We note also that staff who had completed a two-year program of study in ECCE constituted 62.2% of all staff in non-profit centres, compared to 50.5% in commercial centres.

The sample of centres in Study 2 was compared to the sample of centres from the same jurisdictions in Study 1. As seen in Table 3.4, the samples were very similar in terms of auspice, sources of revenue, percentage of revenue used for wages, and the ages of the children served. This consistency across the two samples provides some confidence that the Study 2 sample shared a number of significant features with a larger, nation-wide sample that was recruited using identical methodologies. To what extent either or both samples can be said to represent all centres in Canada cannot be inferred from these data, but the consistency of the data on features across samples lends a measure of confidence to the information generated by the samples.

3.7 The Staff Sample

As noted above, the centre directors participated in an initial telephone screening during which they were asked for the total number of permanent teaching staff working at their centre. The director was then sent sufficient Staff Questionnaires for each person so identified. The letter that accompanied the package of questionnaires clarified that Staff Questionnaires were to be completed *only by staff employed by the centre for at least 30 hours a week and working with children under age six on a regular basis*. As a result, some centres received more Staff Questionnaires than they required because they employed part-time staff and/or because some staff worked only with children over age six. Since we do not know the number of staff fitting

either of these categories in any centre, we cannot calculate how many questionnaires should have been returned from a centre had all eligible teaching staff completed a questionnaire. In addition, we do not know exactly how many questionnaires were, in fact, distributed by the directors.

Overall, 1,352 staff questionnaires were returned but, given instances of missing data, most analyses were performed on a somewhat smaller total number of questionnaires. Breakdowns are presented by province/territory and centre auspice in Table 3.5 and by teaching position in Table 3.6. These tables show that there were more completed questionnaires from staff in non-profit centres than in commercial centres, and that the largest single proportion of staff was at the rank of teacher. Staff members in non-profit centres may be somewhat over-represented in the sample since more non-profit centres participated in the study, and a higher proportion of staff in non-profit centres participated than did staff in commercial centres.

In order to determine the representativeness of the staff sample in the current Study 2 of *YBIC!,* key features of the sample were compared with those obtained from the same jurisdictions in the national sample in Study 1 of *YBIC!*[10] Tables 3.7 and 3.8 show that the largest proportion of respondents in both Study 1 and Study 2 reported that their highest level of overall and ECCE-specific education was a community college program. A slightly higher percentage of respondents in the Study 1 national sample had completed a B.A., and a slightly higher percentage of respondents in the seven jurisdictions in Study 2 listed "high school graduation" as their highest level of educational achievement.

Table 3.5

Study 2 Total Staff Sample, by Jurisdiction and Auspice

Jurisdiction	Statistic	Non-profit	Commercial	Total number *Column %*
British Columbia	Number Row percent	115 78.2%	32 21.8%	147 *10.9%*
Alberta	Number Row percent	181 63.1%	106 36.9%	287 *21.4%*
Saskatchewan	Number Row percent	188 100.0%	0 0.0%	188 *14.0%*
Ontario	Number Row percent	139 57.9%	101 42.1%	240 *17.9%*
Québec	Number Row percent	198 89.2%	24 10.8%	222 *16.5%*
New Brunswick	Number Row percent	107 53.8%	92 46.2%	199 *14.8%*
Yukon	Number Row percent	41 73.2%	15 26.8%	56 *4.1%*
TOTAL	Number Row percent *Column %*	969 72.3% *100.0%*	370 27.6% *100.0%*	1,339 100.0% 100.0%

Note: Since some respondents did not answer all questions and some centres did not report their auspice, the total number of responses is less than the overall total of 1,352 returned Staff Questionnaires.

Table 3.6

Study 2 Total Staff Sample, by Teaching Position and Auspice

Teaching Position	Statistic	Non-profit	Commercial	Total
Assistant teachers	Number	156	89	245
	Column %	16.5%	25.2%	18.9%
Teachers	Number	685	207	892
	Column %	72.6%	58.6%	68.8%
Supervisors	Number	103	57	160
	Column %	10.9%	16.1%	12.3%
All positions	Number	944	353	1,297
	Row %	72.3%	27.6%	100.0%
	Column %	*100.0%*	*100.0%*	*100.0%*

Note: Since some respondents did not answer all questions and some centres did not report their auspice, the total number of responses is less than the overall total of 1,352 returned Staff Questionnaires.

Table 3.7

Study 1 and Study 2 Total Staff Samples, by Highest Overall Level of Education

Highest overall level of education	Statistic	Study 1	Study 2
High-school diploma or less	Number	646	237
	Percent	15.8%	17.9%
Community college program	Number	2,755	897
	Percent	67.2%	67.7%
B.A. or higher	Number	696	176
	Percent	17.0%	13.4%
All levels	Number	4,097	1,310
	Percent	100.0%	100.0%

Note: Since some respondents did not answer all questions, the total number of responses is less than the overall total of 1,352 returned Staff Questionnaires in Study 2.

Of the 1,352 staff who returned completed questionnaires in Study 2, 326 (24.1%) agreed to participate in the observation component of the study. (Due to missing data, however, most analyses were based on somewhat fewer cases.) As in the Study 2 sample as a whole, the observed staff in the Study 2 sample was made up predominantly of staff in non-profit centres, with the overwhelming majority reporting their position as "teacher" (Table 3.9). The largest proportion of both observed and not-observed staff had completed community college programs as their highest levels of overall and ECCE-specific education (Tables 3.10 and 3.11). Education levels appeared to vary across infant/toddler and preschool classrooms. The infant/toddler rooms had a higher percentage of staff in the lowest education level, and the preschool rooms had a higher percentage of staff in the highest education level. Approximately the same percentages were found in the middle, community college, level (Tables 3.12 and 3.13).

Table 3.8

Study 1 and Study 2 Total Staff Samples, by Highest Level of ECCE-Specific Education

Highest level of ECCE education	Statistic	Study 1	Study 2
No ECCE education	Number Column %	511 12.9%	154 12.1%
Post-secondary ECCE studies	Number Column %	3,049 77.0%	1,023 80.6%
ECCE-related B.A. or higher	Number Column %	401 10.1%	93 **7.3%**
TOTAL	Number Column %	3,961 100.0%	1,270 100.0%

Note: Since some respondents did not answer all questions, the total number of responses is less than the overall total of 1,352 returned Staff Questionnaires in Study 2.

Table 3.9

Study 2 Staff Sample, by Not Observed and Observed, Teaching Position and Auspice

Teaching Position	Auspice	Not observed	Observed	Total
Assistant Teacher	Non-profit	132 61.7%	24 77.4%	156 63.7%
	Commercial	82 38.3%	7 22.6%	89 36.3%
	Total	214 100.0%	31 100.0%	245 100.0%
Teacher	Non-profit	528 77.8%	157 73.7%	685 76.8%
	Commercial	151 22.2%	56 26.3%	207 23.2%
	Total	679 100.0%	213 100.0%	892 100.0%
Supervisor	Non-profit	57 66.3%	46 62.2%	103 64.4%
	Commercial	29 33.7%	28 37.8%	57 35.6
	Total	86 100.0%	74 100.0%	160 100.0%
All positions	Non-profit	717 73.2%	227 71.4%	944 72.8%
	Commercial	262 26.8%	91 28.6%	353 27.2%
	Total	979 100.0%	318 100.0%	1,297 100.0%

Note: Since some respondents did not answer all questions, the total number of responses is less than the overall total of 1,352 returned Staff Questionnaires in Study 2.

Table 3.10

Study 2 Staff Sample, by Not Observed and Observed, and Highest Overall Level of Education

Highest Overall Level of Education	Not observed	Observed	Total
High school graduation or less	196 19.8%	41 12.9%	237 18.1%
Community college program	658 66.4%	239 74.9%	897 68.5%
B.A. or higher	137 13.8%	39 12.2%	176 13.4%
TOTAL	991 100.0%	319 100.0%	1,310 100.0%

Note: Since some respondents did not answer all questions, the total number of responses is less than the overall total of 1,352 returned Staff Questionnaires.

Table 3.11

Study 2 Staff Sample, by Not Observed and Observed, and Highest Level of ECCE-Specific Education

Highest Level of ECCE Education	Not observed	Observed	Total
No ECCE education	124 12.9%	30 9.8%	154 12.1%
Post-secondary ECCE studies	764 79.3%	259 84.6%	1,023 80.6%
ECCE-related B.A. or higher	76 7.9%	17 5.6%	93 7.3%
TOTAL	964 100.0%	306 100.0%	1,270 100.0%

Note: Since some respondents did not answer all questions, the total number of responses is less than the overall total of 1,352 returned Staff Questionnaires.

Table 3.12

Study 2 Observed Staff Sample, by Highest Overall Level of Education, and Age of Children Cared For

Highest overall level of education	Statistic	Age of children cared for		
		0-3 years	3-5 years	Total 0-5 years
High school graduation	Number Percent	24 14.3%	20 10.6%	37 12.3%
Community college program	Number Percent	127 75.6%	143 75.7%	228 75.7%
B.A. or higher	Number Percent	17 10.1%	26 13.8%	37 12.3%
ALL LEVELS	Number Percent	168 100.0%	189 100.0%	302 100.0%

Note: Since some respondents did not answer all questions, the total number of responses is less than the overall total of staff observed.

Table 3.13

Study 2 Observed Staff Sample, by Highest Level of ECCE-Specific Education, and Age of Children Cared For

Highest level of ECCE-specific education	Statistic	Age of children cared for		
		0-3 years	3-5 years	Total 0-5 years
No background or course lasting less than one year	Number	18	13	27
	Percent	11.1%	7.1%	9.3%
Community college program	Number	136	159	248
	Percent	84.0%	86.9%	85.5%
B.A. or higher	Number	8	11	15
	Percent	4.9%	6.0%	5.2%
ALL LEVELS	Number	162	183	290
	Percent	100.0%	100.0%	100.0%

Note: Since some respondents did not answer all questions, the total number of responses is less than the overall total of staff observed.

Table 3.14

All Observed Staff, by Jurisdiction, Auspice and Teaching Position

Jurisdiction	Auspice	Teaching Position			Total
		Assistant teacher	Teacher	Supervisor	
British Columbia	Non-profit	8	15	12	35
	Commercial	3	1	3	7
	Total	11	16	15	42
Alberta	Non-profit	2	15	12	29
	Commercial	2	10	8	20
	Total	4	25	20	49
Saskatchewan	Non-profit	12	22	11	45
	Commercial	0	0	0	0
	Total	12	22	11	45
Ontario	Non-profit	1	28	4	33
	Commercial	1	16	7	24
	Total	2	44	11	57
Québec	Non-profit	0	42	0	42
	Commercial	0	5	1	6
	Total	0	47	1	48
New Brunswick	Non-profit	0	23	6	29
	Commercial	1	18	8	27
	Total	1	41	14	56
Yukon	Non-profit	1	12	1	14
	Commercial	0	6	1	7
	Total	1	18	2	21
ALL JURISDICTIONS	Non-profit	24	157	46	227
	Commercial	7	56	28	91
	Total	31	213	74	318

An overview of the entire observed sample broken down by jurisdiction, auspice and teaching position is presented in Table 3.14. The same information is presented just for the infant/toddler rooms in Table 3.15, and for preschool rooms in Table 3.16.

In summary, the staff sample in Study 2 was very similar to the national staff sample in Study 1. Despite differences in scope and sampling techniques, both samples were largely made up of the same proportions of staff in the three different teaching positions, and the same proportions of educational training. The observed staff appeared to have slightly higher education levels than the non-observed staff. As in all such studies, it may be reasonable to assume that staff who agreed to participate in the observation component may have had somewhat higher educational and professional backgrounds and orientations than those who did not.

Table 3.15

Staff in Infant/Toddler Rooms, by Jurisdiction, Auspice and Teaching Position

Jurisdiction	Auspice	Teaching Position			Total
		Assistant teacher	Teacher	Supervisor	
British Columbia	Non-profit	4	8	6	18
	Commercial	0	0	1	1
	Total	4	8	7	19
Alberta	Non-profit	1	6	2	9
	Commercial	2	1	1	4
	Total	3	7	3	13
Saskatchewan	Non-profit	5	9	3	17
	Commercial	0	0	0	0
	Total	5	9	3	17
Ontario	Non-profit	0	10	2	12
	Commercial	0	5	2	7
	Total	0	15	4	19
Québec	Non-profit	0	14	0	14
	Commercial	0	2	0	2
	Total	0	16	0	16
New Brunswick	Non-profit	0	10	3	13
	Commercial	0	5	3	8
	Total	0	15	6	21
Yukon	Non-profit	1	4	1	6
	Commercial	0	2	1	3
	Total	1	6	2	9
ALL JURISDICTIONS	Non-profit	11	61	17	89
	Commercial	2	15	8	25
	Total	13	76	25	114

Table 3.16

Staff in Preschool Rooms, by Jurisdiction, Auspice and Teaching Position

Jurisdiction	Auspice	Teaching Position			Total
		Assistant teacher	Teacher	Supervisor	
British Columbia	Non-profit	4	7	6	17
	Commercial	3	1	2	6
	Total	7	8	8	23
Alberta	Non-profit	1	9	10	20
	Commercial	0	9	7	16
	Total	1	18	17	36
Saskatchewan	Non-profit	7	13	8	28
	Commercial	0	0	0	0
	Total	7	13	8	28
Ontario	Non-profit	1	18	2	21
	Commercial	1	11	5	17
	Total	2	29	7	38
Québec	Non-profit	0	28	0	28
	Commercial	0	3	1	4
	Total	0	31	1	32
New Brunswick	Non-profit	0	13	3	16
	Commercial	1	13	5	19
	Total	1	26	8	35
Yukon	Non-profit	0	8	0	8
	Commercial	0	4	0	4
	Total	0	12	0	12
ALL JURISDICTIONS	Non-profit	13	96	29	138
	Commercial	5	41	20	66
	Total	18	137	49	204

3.8 The Director Sample

A total of 234 Centre Questionnaires were completed and returned by the directors of these centres. However, only 194 of these directors also completed and returned the accompanying Director Questionnaire which addressed issues related to the director's professional and educational background, and her attitudes about and perspectives on the field of child care. Table 3.17 shows that, overall, over 80% of all directors in both non-profit or commercial centres completed both the Centre and the Director Questionnaires. When examined by province/territory, however, in Québec only 34.3% of directors submitted a Director Questionnaire along with the Centre Questionnaire. It is unclear why the return rate was so low in this province compared to the other jurisdictions.

Table 3.17

Number and Percent of Completed Centre Questionnaires and Director Questionnaires, by Auspice

Auspice	Completed Centre and completed Director Questionnaire	Completed Centre questionnarie only	Total
Non-profit	128 81.5%	29 18.5%	157 100.0%
Commercial	64 86.5%	10 13.5%	74 100.0%
TOTAL	192 83.1%	39 16.9%	231 100.0%

Note: Three Directors did not provide information about the auspice of their centre.

Table 3.18

Number and Percent of Completed Centre Questionnaires and Director Questionnaires, by Jurisdiction

Jurisdiction	Completed Centre and completed Director Questionnaire	Completed Centre questionnarie only	Total
British Columbia	19 70.4%	8 29.6%	27 100.0%
Alberta	40 97.6%	1 2.4%	41 100.0%
Saskatchewan	37 97.4%	1 2.6%	38 100.0%
Ontario	39 97.5%	1 2.5%	40 100.0%
Québec	12 34.3%	23 65.7%	35 100.0%
New Brunswick	35 87.5%	5 12.5%	40 100.0%
Yukon	12 92.3%	1 7.7%	13 100.0%
TOTAL	194 82.9%	40 17.1%	234 100.0%

Table 3.19

Directors in Non-Profit and Commercial Centres, by Years of Experience and Expectations of Being in the Field in Three Years

Variable	Non-Profit	Commercial	Total
Average number of years working in their current centre	9.6 years	6.5 years	8.6 years
Average number of years in the position of director	6.8 years	5.2 years	6.3 years
Percent who expect to be in the child care field in three years time	84.1%	88.7%	85.6%

As shown in Table 3.19, the child care centre directors in this study had worked an average of 8.6 years in their current child care centre. They had held the director position for an average of 6.3 years. On both criteria, directors in non-profit centres had worked for more years than had directors in commercial centres. Both groups of directors indicated their intention to stay in child care. However, a slightly higher percentage of directors in commercial centres (88.7%) than in non-profit centres (84.1%) indicated that they expected to be working in child care in three years.

Table 3.20 indicates that higher percentages of directors in non-profit centres had achieved a B.A. or higher degree than had directors in commercial centres. The overwhelming majority of directors in both commercial and non-profit centres had completed community college programs. While a somewhat higher percentage of directors in non-profit centres were in the lowest overall education category than were directors in commercial programs, the extremely low numbers in both categories would cause us to use these percentages only with the greatest caution.

Table 3.20

Directors' Highest Completed Level of Overall Education, by Auspice

Highest completed education level	Statistic	Non-profit	Commercial	Total
High school	Number	9	4	13
	Percent	7.1%	6.3%	6.8%
Community college program	Number	75	45	120
	Percent	59.6%	70.3%	63.1%
B.A. or higher	Number	42	15	57
	Percent	33.3%	23.4%	30.0%
ALL LEVELS	Number	126	64	190
	Percent	100.0%	100.0%	100.0%

Note: Since some respondents did not answer all questions, the total number of responses is less than the overall total of 194 returned Director

Table 3.21

Directors' Highest ECCE Education Level, by Auspice

ECCE Education level	Statistic	Non-profit	Commercial	Total
Post-secondary ECCE studies	Number	14	6	20
	Percent	14.1%	12.8%	18.3%
Community college program	Number	58	32	90
	Percent	58.0%	68.1%	61.6%
B.A. or higher	Number	27	9	36
	Percent	27.3%	19.1%	24.7%
ALL LEVELS	Number	99	47	146
	Percent	100.0%	100.0%	100.0%

Note: Since some respondents did not answer all questions, the total number of responses is less than the overall total of 194 returned Director

A similar pattern was found when directors responded to questions regarding their ECCE education level (see Table 3.21). Also, 89.8% of directors in non-profit centres reported that they had participated in professional development activities in the previous 12 months, compared to 79.4% of directors in commercial centres.

The directors were asked to respond to a number of questions regarding the interpersonal working climate within the centre. One set of questions focused on the working relationship between the director and the person (or group) to whom the director was responsible. Directors were asked to indicate to what extent they agreed or disagreed with a list of statements regarding the working relationship; these data are presented in Table 3.22. Overall, 89.2% of all directors reported that the person or group to whom they are responsible "trusts my judgement." Most directors, 86.9%, described this person or group as "supportive" and 78.5% said the person/group "encourages me to try new ideas." While a majority of directors in both non-profit and commercial centres gave these strong positive descriptions, a noticeably higher proportion of directors in non-profit centres gave these positive responses than did directors working in commercial programs. Conversely, a higher proportion of directors in commercial centres gave answers that reflected lower levels of support and encouragement.

3.9 Summary

Including both full-time and part-time children, the centres in the seven jurisdictions in Study 2 served an average of 16.0 children aged 0 to 2 years and 27.3 children aged 3 to 5. These centres had an average of 8.1 full-time and 1.6 part-time child care staff. Overall, 72.3% of staff who participated in the study worked in non-profit centres and 27.6% in commercial centres; however, there was significant variation in these percentages across provincial and territorial boundaries. The majority of participating staff in both non-profit and commercial centres held the position of "teacher" (68.8%) with considerably fewer staff

Table 3.22

Directors' Agreement with Statements that Describe Their Relationship with the Person or Group to Whom They Are Responsible

"The person/group to whom I am responsible…	Non-profit	Commercial	Total
… encourages me to try new ideas."	83.5%	52.4%	78.5%
… gets too involved in the daily administrative issues that should be left to me to handle."	8.3%	23.8%	10.8%
… does not really understand my policies for the children."	11.0%	14.3%	11.5%
…seeks my input in policy development."	75.2%	57.1%	72.3%
… trusts my judgement."	91.7%	76.2%	89.2%
… is often unresponsive to my requests for direction."	7.3%	9.5%	7.7%
… is hard to please."	6.4%	19.0%	8.5%
… is supportive."	88.1%	81.0%	86.9%

describing themselves as either "assistant teacher" (18.9%) or "supervisor" (12.3%). The participating staff from the six provinces and one territory in Study 2 closely resembled the staff sample from the same jurisdictions who participated in the much larger national survey in Study 1 of the *You Bet I Care!* project, with some small variation in education levels in the two samples. The comparison of observed and not-observed staff in Study 2 revealed similar proportions of assistant teachers, teachers and supervisors in both groups. There were indications that levels of overall and ECCE-specific education were somewhat higher in the observed sample than in the not-observed.

Directors in non-profit centres had more years of experience in child care than did directors in commercial centres although overall 80% of directors in both auspices reported that they expected to be in the child care field in three years time. The largest proportion of directors (63.1%) reported the completion of a community college program, followed by 30.0% who had completed a university degree and 6.8% who reported high school as their highest level of educational achievement. Slightly higher percentages of directors in commercial centres had completed community college programs and slightly higher percentages of directors in non-profit centres had completed university degrees.

Due to different methods of reporting statistics across provincial and territorial boundaries, it is difficult to extract exact figures on the entire population of child care centres, staff and directors in Canada.[11] Despite this inherent limitation, however, the characteristics of the Study 2 sample are consistent with those revealed in other studies and data bases. This consistency provides confidence that the participating sample projects a fair and reasonable profile of the child care centres and the staff who work in them in the six provinces and one territory that were the focus of this study. With this level of confidence, we now proceed to Chapter 4 where we present the basic descriptive data from the observation component of this study.

Notes

1 Doherty et al. 2000.
2 Ibid.
3 Doherty 1998.
4 Whitebook, Howes and Phillips 1990, p. 17.
5 Helburn 1995, Table 3.3.
6 Palys 1997.
7 Ibid., p. 147.
8 Whitebook, Howes and Phillips 1990, p. 17.
9 Ibid., p. 18.
10 Doherty et al. 2000
11 The Federal government occasionally publishes a document entitled, "Status of Day Care in Canada," which is essentially a compilation of provincial and territorial statistics. These data, however, are subject to the same limitations as discussed in the text.

Chapter 4

Descriptive Data on the Quality of Child Care in Canada

4.1 Introduction

This chapter presents an overall profile of the observed quality in infant/toddler and preschool rooms. Two different instruments measured the quality of children's experiences in each classroom. First, the emotional and interpersonal climate in the room was measured using the Sensitivity, Harshness and Detachment sub-scales of the *Caregiver Interaction Scale (CIS).* This scale has been used in a number of large-scale child care research projects.[1] Second, the *Infant/Toddler Environment Rating Scale (ITERS)* or the *Early Childhood Environment Rating Scale–Revised (ECERS–R)* were also used as measures of overall quality of the physical environment, the interaction between teacher and children, and the activities provided. We first report the results on the *CIS* and then the results on both the *ITERS* and the *ECERS–R*.

The chapter focuses on the average scores for the various measures. This information is presented for the total sample and is also broken down by province/territory and by non-profit and commercial auspices. The chapter also presents results of correlation analyses among the *ITERS, ECERS–R* and *CIS* measures and specific questions from the Centre, Staff and Director Questionnaires.

4.2 *Caregiver Interaction Scale (CIS)*

The *CIS* scores reflect the frequency with which different kinds of interactions were observed. Therefore, high scores on Sensitivity are desirable while high scores on the Harshness and Detachment sub-scales are not. Scores on the sub-scales range from 1.0 to 4.0.

Table 4.1		
Total Sample: Mean *CIS* Scores, 1998		
Sub-scale	**Infant/toddler rooms**	**Preschool rooms**
Sensitivity	Range 1.1 to 4.0 Mean = 3.28 Median = 3.5	Range 1.2 to 4.0 Mean = 3.25 Median = 3.40
Harshness	Range 1.0 to 2.4 Mean = 1.14 Median = 1.00	Range 1.0 to 4.0 Mean = 1.28 Median = 1.11
Detachment	Range 1.0 to 4.0 Mean = 1.41 Median = 1.25	Range 1.0 to 3.75 Mean = 1.38 Median = 1.00

Table 4.2							
Total Sample: Mean *CIS* Scores, by Auspice, 1998							
Auspice	**Statistic**	**Infant/oddler rooms**			**Preschool rooms**		
		Sensitivity	**Harshness**	**Detachment**	**Sensitivity**	**Harshness**	**Detachment**
Non-Profit	Mean	3.34	1.10	1.36	3.35	1.25	1.32
	SD	0.68	0.21	0.60	0.61	0.40	0.52
Commercial	Mean	3.07	1.28	1.56	3.05	1.35	1.50
	SD	0.78	0.46	0.74	0.80	0.66	0.68
Note: SD: standard deviation.							

Overall, these scores indicate high levels of warm, attentive and engaged teacher behaviour with children and, in most cases, low levels of harshness and detachment. As illustrated by Table 4.2, the observed care tended to be slightly more sensitive and less harsh or detached in both infant/toddler rooms and preschool rooms in non-profit centres. Mean *CIS* scores are presented for each jurisdiction in Table 4.3. There were higher average scores on the Sensitivity sub-scale in Alberta, British Columbia and Saskatchewan than in the total sample.

4.3 *Infant/Toddler Environment Rating Scale (ITERS)* and *Early Childhood Environment Rating Scale–Revised (ECERS–R)*

Both the *ITERS* and the *ECERS–R* are rated on a seven-point scale, which is anchored by the following definitions provided by the authors of the scale:

Table 4.3

Provincial/Territorial Sample: Mean *CIS* Scores, by Jurisdiction, 1998

Jurisdiction	Infant/oddler rooms			Preschool rooms		
	Sensitivity	Harshness	Detachment	Sensitivity	Harshness	Detachment
British Columbia	3.63	1.07	1.26	3.56	1.20	1.18
Alberta	3.76	1.03	1.23	3.64	1.11	1.22
Saskatchewan	3.48	1.14	1.28	3.36	1.43	1.37
Ontario	2.94	1.16	1.61	3.14	1.34	1.36
Québec	2.97	1.19	1.56	3.09	1.36	1.46
New Brunswick	3.04	1.24	1.57	2.98	1.30	1.63
Yukon	3.26	1.02	1.14	2.89	1.13	1.23
TOTAL	3.28	1.14	1.41	3.25	1.28	1.38

> "***Inadequate*** describes care that does not even meet custodial care needs, ***minimal*** describes care that meets custodial and to some small degree basic developmental needs, ***good*** describes the basic dimensions of developmental care, and ***excellent*** describes high-quality, personalized care. The ***inadequate (1***) and ***minimal (3)*** ratings usually focus on provision of basic materials and on health and safety precautions. The ***good (5)*** and ***excellent (7)*** ratings require positive interaction, planning, and personalized care, as well as good materials."[2]

Scores below 3.0 indicate that health and safety needs may not be met and/or little warmth and support is provided by the adults. Scores between 3.0 and 4.9 reflect a situation where health and safety is protected, and warmth and support is provided, but there are few activities that would stimulate children's social, language or cognitive development. Scores of 5.0 and above indicate the presence of activities that support and encourage development and some degree of planning. The mean *ITERS* Total and sub-scale scores for infant/toddler rooms are presented in Table 4.4, for the sample as a whole and for each jurisdiction separately. The *ITERS* data reveal that the average Total score for the entire sample was 4.4 and the sub-scale scores ranged from a low of 3.8 for "Learning activities" to a high of 5.5 for "Adult-child interaction." Total *ITERS* scores also varied across provincial/territorial boundaries. The lowest average Total score (3.6) was found in Quebec and the highest (5.6) was in British Columbia. Table 4.5 shows the average *ITERS* scores broken down by auspice. The mean Total score for non-profit centres was 4.5; for commercial centres it was 4.0.

The mean *ECERS–R* Total and sub-scale scores for the preschool rooms are reported in Table 4.6. For the sample as a whole the average *ECERS–R* Total score was 4.7, with sub-scales ranging from a low of 4.0 for "Learning activities" and a high of 5.4 for "Adult-child interaction." As in the case of the infant-toddler rooms, non-profit preschool rooms (see Table 4.7) had a higher average *ECERS–R* Total score (4.8) than did commercial preschool rooms (4.4). The average provincial/territorial score was higher than the average for the sample as a whole on both scales in Alberta, British Columbia and the Yukon. On the *ECERS–R*, Ontario obtained a slightly higher score than that obtained by the total sample.

Table 4.4

Average *ITERS* Total and Sub-Scale Scores, by Jurisdiction, 1998

Jurisdiction	Furnishings and display	Personal care routines	Listening and talking	Learning activities	Adult-child interaction	Program structure	Adult needs	Total *ITERS*
British Columbia								
N=19 Mean	5.7	6.1	5.8	4.8	6.4	5.4	5.4	5.6
SD	1.1	1.2	1.5	1.3	1.0	1.6	1.5	0.9
Alberta								
N=13 Mean	5.1	5.3	5.3	4.6	6.3	5.5	4.7	5.1
SD	1.2	1.1	1.7	1.1	0.9	1.4	1.5	1.0
Saskatchewan								
N=18 Mean	4.0	4.0	4.7	3.4	5.4	4.8	4.6	4.2
SD	1.2	1.3	1.5	0.9	1.5	1.3	1.3	0.9
Ontario								
N=29 Mean	4.4	3.7	4.5	3.5	5.0	4.2	4.6	4.1
SD	1.3	1.3	1.8	1.3	1.9	2.0	1.2	1.1
Québec								
N=16 Mean	4.0	2.8	4.3	3.2	5.4	4.3	3.5	3.6
SD	1.2	0.8	1.9	0.9	1.2	1.4	1.1	0.7
New Brunswick								
N=21 Mean	3.8	3.6	4.4	3.2	4.8	4.0	3.6	3.8
SD	1.6	1.1	2.0	1.2	1.7	1.4	1.3	1.0
Yukon								
N=9 Mean	4.8	5.4	4.9	4.4	6.2	6.1	5.1	5.2
SD	1.3	1.0	1.9	1.0	1.0	1.1	1.5	0.8
TOTAL								
N=115 Mean	4.5	4.3	4.8	3.8	5.5	4.8	4.5	4.4
SD	1.4	1.6	1.8	1.3	1.5	1.6	1.5	1.2

Note: SD: standard deviation.

Table 4.5

Average *ITERS* Total and Sub-Scale Scores, by Auspice, 1998

Auspice	Furnishings and display	Personal care routines	Listening and talking	Learning activities	Adult-child interaction	Program structure	Adult needs	Total *ITERS*
Commercial								
N=25 Mean	4.1	3.9	4.6	3.5	5.2	4.5	3.5	4.0
SD	1.4	1.3	1.9	1.1	1.6	1.6	1.2	1.0
Non-profit								
N=90 Mean	4.6	4.4	4.9	3.9	5.6	4.9	4.7	4.5
SD	1.3	1.6	1.7	1.3	1.5	1.6	1.5	1.2
TOTAL								
N=115 Mean	4.5	4.3	4.8	3.8	5.5	4.8	4.5	4.4
SD	1.4	1.6	1.8	1.3	1.5	1.6	1.5	1.2

Note: SD: standard deviation.

Table 4.6

Average *ECERS–R* Total and Sub-Scale Scores, by Jurisdiction, 1998

Jurisdiction	Furnishings and display	Personal care routines	Listening and talking	Learning activities	Adult-child interaction	Program structure	Adult needs	Total *ECERS–R*
British Columbia								
N=23 Mean	5.7	6.0	5.8	5.0	6.2	6.0	5.0	5.6
SD	1.0	0.9	1.2	0.9	1.2	1.0	1.3	0.8
Alberta								
N=37 Mean	5.4	5.2	5.4	4.3	6.2	5.8	4.6	5.1
SD	0.9	0.8	1.2	0.9	0.9	1.1	1.2	0.7
Saskatchewan								
N=33 Mean	4.0	4.4	4.2	3.2	5.2	3.6	4.6	4.1
SD	1.3	1.4	1.4	1.1	1.6	1.8	1.1	1.1
Ontario								
N=39 Mean	5.3	4.7	5.1	4.3	5.3	5.8	4.9	4.9
SD	1.3	1.4	1.6	1.3	1.7	1.5	1.3	1.2
Québec								
N=32 Mean	4.9	4.6	5.3	4.0	5.5	5.3	4.3	4.7
SD	0.8	1.2	1.2	0.7	1.6	1.2	0.9	0.8
New Brunswick								
N=39 Mean	4.4	3.5	4.6	3.5	4.7	4.4	3.5	4.0
SD	1.2	1.3	1.6	1.0	1.6	1.6	1.2	1.0
Yukon								
N=12 Mean	5.1	5.1	4.7	4.4	5.0	5.5	4.9	4.9
SD	1.0	0.9	1.3	1.1	1.8	1.7	1.1	1.0
TOTAL								
N=211 Mean	4.9	4.7	5.0	4.0	5.4	5.2	4.7	4.7
SD	1.2	1.4	1.4	1.1	1.6	1.6	1.0	1.1

Note: SD: standard deviation.

Table 4.7

Average *ECERS–R* Total and Sub-Scale Scores, by Auspice, 1998

Auspice	Furnishings and display	Personal care routines	Listening and talking	Learning activities	Adult-child interaction	Program structure	Adult needs	Total *ECERS–R*
Commercial								
N=69 Mean	4.8	4.4	4.7	4.0	5.1	5.1	3.7	4.4
SD	1.1	1.4	1.5	1.1	1.7	1.6	1.1	1.1
Non-profit								
N=142 Mean	5.0	4.8	5.2	4.1	5.6	5.2	4.8	4.8
SD	1.2	1.3	1.4	1.2	1.4	1.7	1.2	1.1
TOTAL								
N=211 Mean	4.9	4.7	5.0	4.0	5.4	5.2	4.8	4.7
SD	1.2	1.4	1.4	1.1	1.6	1.6	1.3	1.1

Note: SD: standard deviation.

Figure 4.1

Distribution of *ITERS* Total Scores, One-Point Increments, 1998

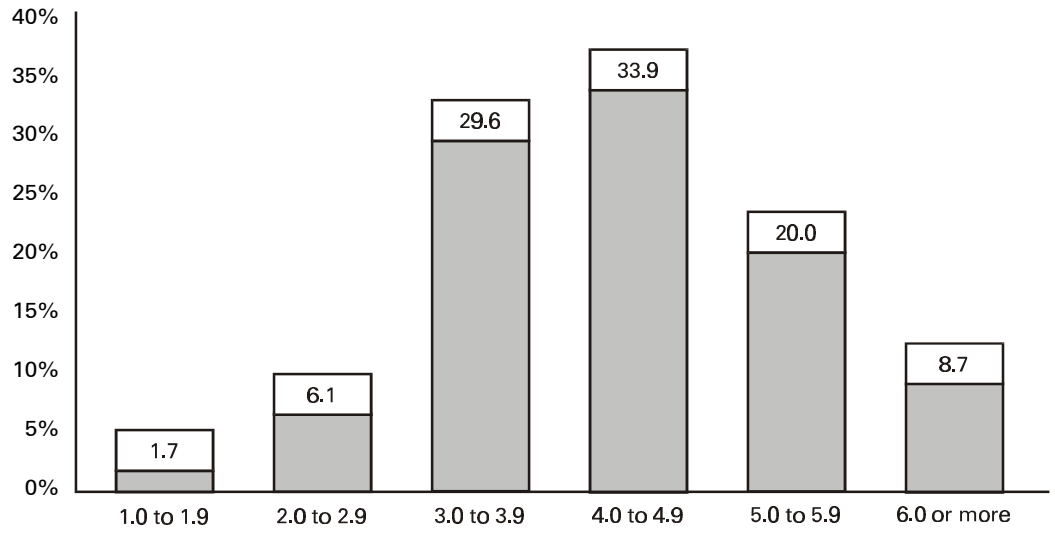


Figure 4.2

***ITERS* Scores: Quality Dimensions, 1998**

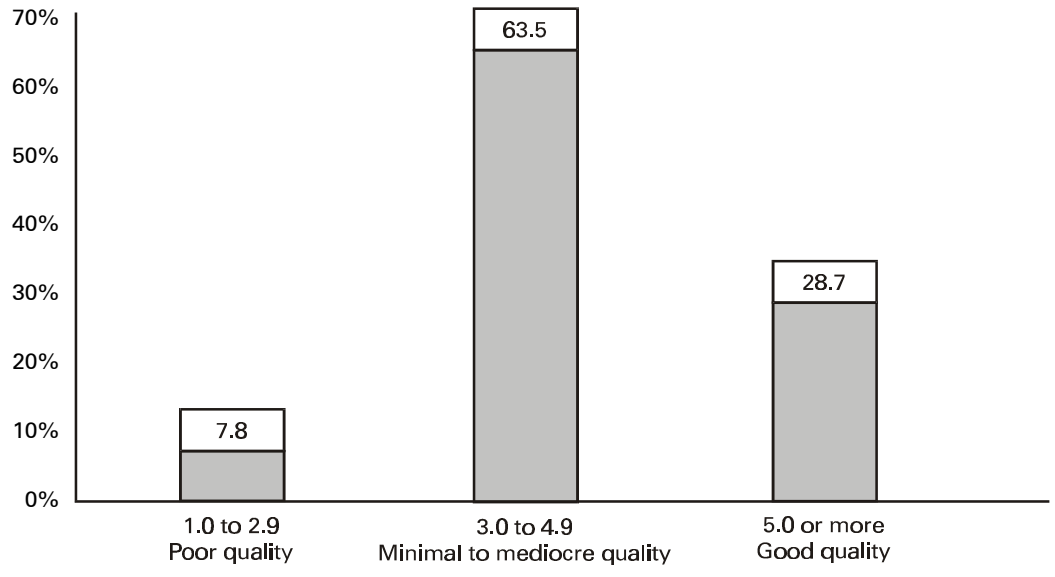


Figure 4.3

Distribution of *ECERS–R* Total Scores, One-Point Increments, 1998

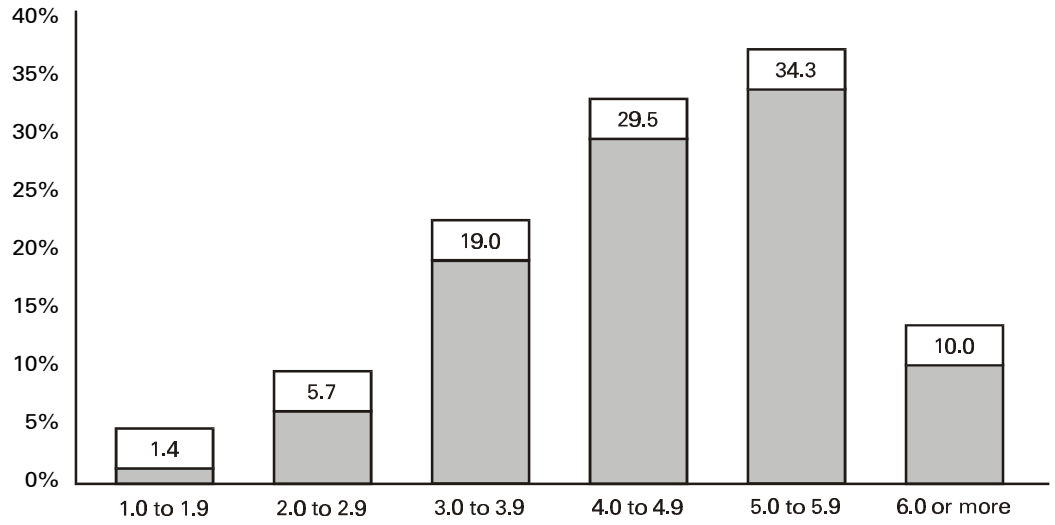
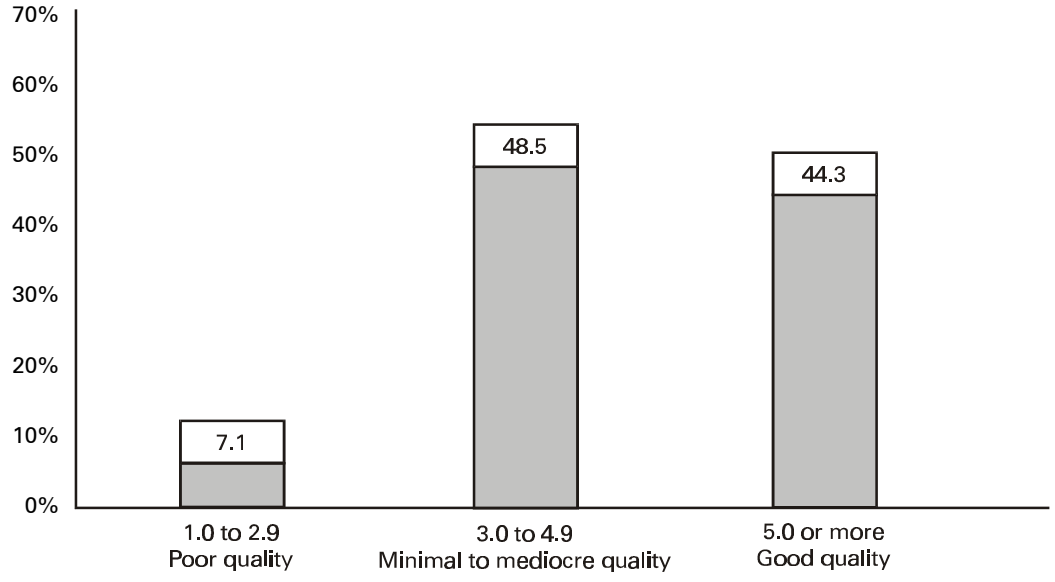


Figure 4.4

***ECERS–R* Scores: Quality Dimensions, 1998**



In Figure 4.1 we present a breakdown of the distribution of *ITERS* Total scores in one-point increments (on the seven-point scale) and in Figure 4.2 the same data are presented in clusters using the descriptors of "poor," "minimal" (scores between 3.0 and 4.9), and "good" (scores 5.0 and over). Figures 4.3 and 4.4 present the parallel data for the *ECERS–R* data. The results reported in these figures are not encouraging. More than half of the preschool rooms observed (55.6%) and nearly three-quarters of the infant/toddler rooms (71.3%) received a score below 5.0. In other words, children's health and safety was protected, and teachers were warm and supportive, but learning opportunities were minimal. Yet, as indicated in the previous chapter (Tables 3.10 and 3.11), the teaching staffs who were observed appear to have a somewhat higher level of overall education and of ECCE-specific education than the teaching staff population as a whole. If this self-selected sample is a somewhat more advantaged group that felt sufficiently confident to agree to being observed, then we can only assume that the centres and staff that did not participate are likely to be offering lower-quality care.

In 7.8% of infant/toddler rooms and 7.1% of preschool rooms the observed care was rated as poor (score below 3.0). Children in these rooms were receiving care that has been described by the authors of the scale as likely to compromise children's development because of poor facilities, inadequate supervision and/or non-supportive interaction between teacher and children.[3]

The overall lower quality in infant/toddler rooms is especially disturbing. As reported in Tables 4.4 and 4.6, the mean Total score for the *ITERS* was lower than the mean Total *ECERS–R* for the sample as a whole. This discrepancy parallels an earlier finding that showed that ECCE staff in infant/toddler classrooms also had slightly lower overall and ECCE educational levels than did staff in preschool rooms. On a total-sample basis, the mean score for the *ITERS* sub-scale that assesses the quality of learning activities was below 4.0. This indicates few stimulating activities that would encourage children's development.

4.4 Analysis of Individual Items on the *ITERS* and *ECERS–R*

All the data reported on the *ITERS* and *ECERS–R* have thus far focused on average sub-scale and Total scores. Each of the sub-scales includes a number of individual items and we undertook to examine these individual items in order to identify areas of strength and weakness with greater precision.

4.4a Individual Items on the *ITERS*

The highest average sub-scale score on the *ITERS* was "Adult-child interaction" at 5.5, a score consistent with the high scores on the *CIS* Sensitivity scale. Table 4.8 identifies all the items on the *ITERS* that received an average score below 4.0.

Low scores on both health practice and diapering/toileting tend to reflect poor hand-washing practices. Babies exposed to poor hygiene practices are particularly vulnerable to illness because of their immature immune systems. The cultural awareness item assesses the extent to which there is ethnic and cultural variety in dolls, pictures, books and music, and the extent to which pictures reflect different ages and males and females in similar roles. Between the ages of two and three, children begin to show clear awareness of physical differences such as skin tone and hair texture. However, they have not yet developed prejudices against people who are different from them. This means that the toddler years offer an ideal opportunity to begin to assist children to appreciate rather than fear cultural differences.

Table 4.8	
***ITERS* Items with the Lowest Scores, 1998**	
Sub-scale	**Mean item scores**
Personal care routines	Health policy - 3.5 Health practice - 3.7 Diapering and toileting - 3.7 Safety practice - 3.9
Learning activities	Pretend play - 3.5 Art - 3.9 Active physical play - 3.9 Cultural awareness - 2.0
Adult needs	Opportunities for professional growth - 3.5

4.4b Individual Items on the *ECERS–R*

As on the *ITERS*, the highest average sub-scale score on the *ECERS–R* was "Interaction" at 5.4. Table 4.9 identifies all the items on the *ECERS–R* that received an average score below 4.0.

As with the *ITERS*, the lowest score was related to the provision of guidance and activities that would assist children to understand and respect diversity of appearance, culture, language and religion. Also as with the *ITERS*, there was a low average score for health practice, i.e., practices such as hand-washing before touching food or after assisting children with toileting.

The nature/science item and the item focusing on the use of TV, videos or computers are new additions to the original *ECERS*. The nature/science item looks at the availability of books, materials and games and the frequency of activities that would assist children to develop an understanding of nature and basic

Table 4.9	
***ECERS–R* Items with the Lowest Scores, 1998**	
Sub-scale	**Mean item scores**
Activities	Promoting acceptance of diversity - 2.4 Nature/science - 2.9 Music/movement activities - 3.3 Use of TV, videos or computers - 3.7
Personal care routines	Health practices - 3.5
Parents and staff	Provisions for the personal needs of staff - 3.2 Opportunities for professional growth - 3.6

scientific concepts such as height. The item that focuses on the use of TV, videos or computers is concerned not only with the frequency of use but also with the appropriateness of the materials presented. For example, a program would score 3.0 if the children's use of TV, videos and computers was limited to one hour in a full-day program, the content of the materials was non-violent and culturally sensitive, and alternative activities were accessible when TV or computers were being used. A score of 5.0 includes all that is in 3.0 plus materials that encourage active involvement by the children and staff; for example, staff watch and discuss a video with the children. Programs scoring 7.0 have computer software that encourages creativity, and use videos to support and extend classroom or field trip activities.

4.5 Correlational Analyses

4.5a Correlations between *ITERS* or *ECERS–R* and *CIS* Scores

The first question addressed in these analyses was the extent to which various measures of child care quality were consistent with one another. As shown in Tables 4.10 and 4.11, there were significant positive correlations[4] between the *ITERS* or *ECERS–R* Total scores and their respective sub-scales. In addition, *ITERS* and *ECERS–R* Total scores and all the sub-scale scores on both measures also correlated positively with the *CIS* Sensitivity score. These data indicate that caregivers in centres with higher levels of program quality engaged in more sensitive caregiving. Higher Sensitivity scores were associated with *lower* levels of Harshness and Detachment. More sensitive caregivers were less likely to be engaged in harsh or detached caregiving. Similarly, higher *ITERS* and *ECERS–R* Total and sub-scale scores were associated with lower levels of harsh or detached caregiving. Programs with higher quality scores had more sensitive caregiving, and programs with lower quality scores had more detached and harsh caregiving.

Table 4.10

***ITERS* and *CIS* Correlations, 1998**

	ITERS **Total**	***CIS*** **Sensitivity**	***CIS*** **Harshness**	***CIS*** **Detachment**
ITERS Total	1.000	.65**	-.40**	-.48**
ITERS Furnishings sub-scale	.77**	.37**	-.17ns	-.24**
ITERS Personal care routines sub-scale	.86**	.53**	-.35**	-.39**
ITERS Listening and talking sub-scale	.70**	.62**	-.21*	-.50**
ITERS Learning activities sub-scale	.84**	.50**	-.24**	-.30**
ITERS Interactions sub-scale	.70**	.77**	-.58**	-.63**
ITERS Program structure sub-scale	.75**	.57**	-.45**	-.48**
ITERS Adult needs sub-scale	.67**	.38**	-.22*	-.24**
CIS Sensitivity	.65**	1.000	-.51**	-.72**
CIS Harshness	-.40**	-.51**	1.000	.45**
CIS Detachment	-.48**	-.72**	.45**	1.000

Note: * = $p < .05$; ** = $p < .01$; ns: not significant

Table 4.11

***ECERS–R* and *CIS* Correlations, 1998**

	ECERS–R Total	*CIS* Sensitivity	*CIS* Harshness	*CIS* Detachment
ECERS–R Total	1.000	.67**	-.37**	-.48**
ECERS–R Space and furnishings sub-scale	.86**	.50**	-.36**	-.47**
ECERS–R Personal care routines sub-scale	.79**	.52**	-.36**	-.53**
ECERS–R Language/reasoning sub-scale	.84**	.66**	-.41**	-.59**
ECERS–R Activities sub-scale	.86**	.46**	-.30**	-.43**
ECERS–R Interaction sub-scale	.80**	.78**	-.64**	-.69**
ECERS–R Program structure sub-scale	.79**	.48**	-.37**	-.48**
ECERS–R Parents and staff	.72**	.48**	-.26**	-.46**
CIS Sensitivity	.67**	1.000	-.60**	-.72**
CIS Harshness	-.37**	-.60**	1.000	.55**
CIS Detachment	-.48**	-.72**	.55**	1.000

Note: * = $p < .05$; ** = $p < .01$

4.5b Correlations of Centre Characteristics with *ITERS* or *ECERS–R* and *CIS* Scores

To what extent is process quality associated with characteristics of the child care centres and the directors and staff who work in them? A number of centre variables that have been used in other studies were selected for closer examination (Table 4.12). These included variables related to child care regulations (ratio and number of children per group), finances (proportion of centre revenue from government grants to increase wages, whether the centre receives donated space or utilities, proportion of expenditures on various items, and level of parent fees), percent of staff with ECCE training, whether centres were used as ECCE practicum placement sites, and the auspice of the centre. Since auspice is a categorical variable (non-profit or commercial) but not a quantitative one, a positive correlation with the "auspice" in these analyses would indicate that quality was significantly higher in non-profit centres and lower in commercial centres. The absence of a non-significant correlation indicates that auspice had no statistically meaningful relationship to observed quality.

In infant/toddler rooms, there were no significant correlations between the *ITERS* Total scores and either adult:child ratio, the number of children in the room, percent of expenditures on staff wages, or the percent of expenditures accounted for by rent or mortgage payments. There were significant positive correlations between *ITERS* Total quality scores and:

- the percentage of revenue accounted for by government-provided wage enhancement grants;
- the level of full-time fees;
- the percentage of staff with ECCE-specific education;

Table 4.12

***ITERS* and *CIS* Correlations with Centre Variables, 1998**

	ITERS Total	*CIS* Sensitivity	*CIS* Harshness	*CIS* Detachment
Adult:child ratio	-.10	-.00	.00	.08
Number of children in the observed room	.07	.01	.00	-.03
Percent of revenue: Grant to increase wages	.23**	.15	-.14	-.14
Percent of expenditures: Staff wages	.12	.04	-.29	-.04
Percent of expenditures: Staff benefits	.26**	.22*	-.00	-.15
Percent of expenditures: Rent/mortgage	-.19	-.15	.25	-.00
Percent of expenditures: Utilities	-.23*	-.10	.23	.06
Full-time fees, 0-17 months	.36**	.00	-.00	.00
Full-time fees, 18-35 months	.36**	.03	-.00	.00
Donations: Free/subsidized rent	.35**	.19*	-.17	-.14
Donations: Free/subsidized utilities	.36**	.24**	-.22	-.17
Percent of centre staff with an ECCE certificate or diploma	.19*	-.02	.06	.07
Auspice	-.18	-.15	.29*	-.09
Centre used as practicum site	.29**	.17	-.14	-.12

Note: * = $p < .05$; ** = $p < .01$

- the centre is used as a student-teacher practicum site;
- the percentage of centre expenditures used for staff benefits;
- the receipt of free or subsidized rent/mortgage; and
- the receipt of free or subsidized utilities.

Consistent with the above list, there were *negative* correlations between the *ITERS* Total score and the percentage of centre expenditures accounted for by rent/mortgage and utilities. In the infant/toddler rooms, the auspice variable did not reveal any significant difference between non-profit and commercial rooms.

The results of the correlational analyses between *ECERS–R* Total quality scores and these centre variables are presented in Table 4.13. The same overall patterns found in the *ITERS* analyses were replicated in the *ECERS–R* analyses, although there were some small differences in the correlation coefficients and significance levels. In particular we note that, while auspice was not correlated with any of the quality measures in the infant/toddler rooms (Table 4.12), there was a significant positive correlation between auspice (i.e., non-profit status) and quality in the preschool rooms (Table 4.13).

Table 4.13

***ECERS–R* and *CIS* Correlations with Centre Variables, 1998**

	ECERS–R Total	*CIS* Sensitivity	*CIS* Harshness	*CIS* Detachment
Adult:child ratio	.18**	.08	-.14*	-.00
Number of children in the observed room	.07	.01	.00	-.03
Percent of revenue: Grant to increase wages	.23**	.12	-.10	-.23**
Percent of costs: Staff wages	.19**	.08	.00	-.06
Percent of costs: Staff benefits	.14*	.06	.04	-.00
Percent of costs: Rent/mortgage	-.16*	-.05	-.04	-.03
Percent of costs: Utilities	-.27**	-.15	.02	.19**
Full-time fees, 3-5 years	.32**	.01	-.06	-.15*
Donations: Free/subsidized rent	.26**	.13	-.09	-.05
Donations: Free/subsidized utilities	.13	.08	-.08	-.04
Percent of staff with an ECCE certificate or diploma	.32**	.11	-.06	-.06
Centre used as practicum site	.16*	.13*	-.01	-.05
Auspice	-.26**	-.24**	.07	.19*

Note: * = p< .05; ** = p< .01

While these analyses revealed a number of significant correlations between quality and specific staff and centre variables, no significant correlations were found with any of the director variables. This was a somewhat surprising finding given that other studies have found correlations.[5] The absence of significant director variables, however, does not mean that there are no such variables, but that in this specific sample, with the specific items designed for this study, and with the relatively large number of directors not returning questionnaires, no statistically significant relationships were found with the director variables.

4.5c Correlations of Staff Characteristics and Observational Data with *ITERS* or *ECERS–R* and *CIS* scores

A number of staff variables found to be significant correlates of quality in other child care studies were also examined (see Tables 4.14 and 4.15). Overall, *ITERS* quality was significantly and *positively* correlated with:

- staff wages;
- the observed staff member's level of satisfaction with their wages, benefits and possibilities for promotion;
- the observed staff member's level of satisfaction with their colleagues and their work environment;

Table 4.14

***ITERS* and *CIS* Correlations with Observed Staff Variables, 1998**

	ITERS Total	*CIS* Sensitivity	*CIS* Harshness	*CIS* Detachment
Wages	.28**	.02	-.14	.01
Number of hours per week supervising practicum students	-.02	-.15	-.15	.13
Number of hours of unpaid overtime at your centre	-.18	-.15	.37**	.12
Satisfaction with wages, benefits, promotion possibilities	.32**	.26**	-.21*	-.16
Satisfaction with colleagues and work environment	.24**	.26**	-.01	-.07
Number of children in the observed room	.22*	.23	-.05	-.05
Number of staff in the observed room	.44**	.29**	-.19*	-.05
Overall education level	.24*	.04	.02	-.17
ECCE education level	.28*	.01	-.09	-.14
Cultural diversity in the classroom	.22*	.14	.04	-.08

Note: * = $p < .05$; ** = $p < .01$

- the observed staff member's highest level of overall education;
- the observed staff member's highest level of ECCE-specific education;
- cultural diversity observed in the classroom;
- the number of children in the room;
- the number of staff in the room.

All these findings, with the exception of the positive correlation between quality and the number of children in the observed room, are consistent with previous child care research. Typically, the number of children in an observed room has been associated with lower, not higher, child care quality. The American studies in which the number of children in the room was negatively correlated with quality included a significant number of child care centre "chains," i.e., large commercial organizations that operate child care on a for-profit basis in which volume (enrolment) is maximized and expenses (staff wages) are minimized. The Canadian sample did not include any such large "chain" centres. In fact, "larger" group size did not mean excessively large group sizes. All of the classrooms in the study were well within their respective provincial/territorial regulatory limits regarding the maximum number of children permitted in the room and the adult:child ratio.

As illustrated in Table 4.14, the number of staff in the observed room correlated with *ITERS* scores much more significantly than did the number of children. The number of staff in a room seemed to be a function of the extreme *smallness* of specific centres. Many centres with small staff sizes not only obtained lower *ITERS* Total scores, but also had infant/toddler rooms in which one staff member worked alone. Having more than one adult in a room provides the potential for additional support in the work as well as heightened levels of collegiality and morale, and these factors may influence quality. Noting the high correlation between quality and the number of staff in a room, we included the number of staff in the observed classroom in subsequent correlational analyses.

The results of the correlations between *ECERS–R* Total scores and staff variables are presented in Table 4.15. The same general pattern of positive correlations found with the *ITERS* Total scores were found here as well, but there are a number of additional variables of interest that were also correlated with quality. These additional variables included: (1) satisfaction with colleagues and the work environment; (2) participation in professional development courses in general and anti-bias curricula in particular; and (3) situations in which staff and directors formally identified their goals and objectives.

Conversely, there was a significant *negative* correlation between the number of hours staff worked and quality scores. Centres in which staff worked more hours had lower quality scores, while centres in which

Table 4.15

***ECERS–R* and *CIS* Correlations with Observed Staff Variables, 1998**

	ECERS–R Total	*CIS* Sensitivity	*CIS* Harshness	*CIS* Detachment
Wages	.31**	.13	-.11	-.20**
Number of hours regularly scheduled to work	-.15*	-.15*	.08	.16*
Number of years worked in child care	.10	.14*	-.09	-.13
Increase in benefits in the past two years	.12	.17*	-.23*	-.12
Satisfaction with wages, benefits, promotion possibilities	.21**	.16**	-.11	-.07
Satisfaction with colleagues and work environment	.24**	.08	-.12	-.07
Overall education level	.13	.12	-.02	-.08
ECCE Education level	.22**	.16*	-.11	-.08
Participation in professional development	.18**	.04	-.08	-.07
Participation in courses in anti-bias curriculum	.18**	.10	-.08	-.11
Identification of formal goals by director and staff	.22**	.07	.07	-.07
Cultural diversity in the classroom	.17*	.13	.01	-.04

Note: * = $p < .05$; ** = $p < .01$

staff worked fewer hours had higher quality scores. In contrast to infant/toddler classrooms, where both overall and ECCE-specific education were found to be significantly correlated with child care quality, in the preschool rooms only ECCE-specific education was significant.

4.6 Summary

The data reported in this chapter are helpful in providing a descriptive profile of child care quality in the centres that participated in this study. The good news appears to be that adult-child interactions in both infant/toddler and preschool rooms were observed to be highly sensitive, with few instances of detachment or harshness on the part of the teachers. Sensitivity levels also correlated with high scores on the *ITERS* and the *ECERS–R.* Another piece of relatively good news is that only 7.8% of infant/toddler rooms and 7.1% of preschool centres were rated in the "poor" range as defined by the *ITERS* and *ECERS–R* criteria.

There is cause for serious concern, however, in the finding that only 28.7% of all infant/toddler rooms and 44.3% of all preschool rooms were judged to be of "good" quality (obtained a score above 5.0 on the seven-point scale). A majority of infant/toddler rooms (63.5%) and nearly half of all preschool rooms (48.5%) were in the "minimal" range (obtained a score between 3.0 and 4.9). On the *ITERS* the following individual items were found to be of particularly low quality:

- cultural awareness (2.0);
- health policy (3.5);
- health practice (3.7);
- diapering and toileting (3.7);
- safety practices (3.9);
- pretend play (3.5);
- art (3.9);
- active physical play (3.9); and
- opportunities for the professional growth of the staff (3.5).

In the preschool rooms individual items that received low scores were:

- promoting of acceptance of diversity (2.4);
- nature/science (2.9);
- music/movement activities (3.3);
- use of TV, video or computers (3.7);
- health practices (3.5);
- provisions for the personal needs of staff (3.2); and
- opportunities for the professional growth of the staff (3.6).

The data also paint a picture of "good things going together"; that is, centres that were rated high in one aspect of quality were usually rated high in others. For example, *ITERS* and *ECERS–R* Total and sub-scale scores correlated positively with scores on Sensitivity on the *CIS* and negatively with scores on Harshness and Detachment. A number of specific financial variables (the presence of government grants to increase wages, relative level of fees), expenditures (proportion of revenue spent on each of staff wages, benefits, rent, utilities) and teacher education levels were also found to be positively correlated with the respective measures of quality.

We also note that many of the items that received low scores were on specific practices such as hand-washing. Major systemic changes are not required to improve scores on these items; poor practice could be remedied through a combination of staff education, supervision and monitoring. Addressing low scores in other areas, however, would require serious and sustained effort. The provision of more stimulating and developmentally appropriate activities will require major new resources for staff pre-service and in-service training, and for programming materials. Over the longer run it is critical that the field of child care attract and retain staff who have the kind of education and appreciation of children's development that would lead them to provide more stimulating learning activities. This requires addressing the current low salaries and poor benefits provided to child care teachers.

Taken together, the data reported in Chapters 3 and 4 provide a context for the predictive analyses reported below in Chapter 5 and also provide useful comparisons with data from other child care studies in both Canada and the United States. Since 1990, the previous version of the *ECERS–R*[6] has been used in studies of child care in British Columbia, New Brunswick, and Ontario.[7] As noted by the earlier scale's authors, who also developed the *ECERS–R*, the revised version is based on "the same general rationale and underlying constructs."[8] It does, however, include more content related to interaction and to health and safety practices. In addition, the descriptors include more references to indications of inclusion and cultural diversity. While the present study used the newly revised version, the *ECERS–R*, and different sampling techniques were used in these different provincial studies, comparison of these data with those from the current study can be useful (Table 4.16).

Differences in samples and procedures severely limit any kind of causal interpretation of these within-province comparative data collected some years apart. As context, however, it is interesting to note some of the broader policy factors that may have contributed in some way to these findings. For example, the

Table 4.16

Comparison of Selected Provincial Mean Total *ECERS* Scores Obtained in Previous Studies, with the *ECERS–R* Scores Obtained in the 1998 *You Bet I Care!* Study

	British		New Brunswick		Ontario	
Study date	1994	1998	1993	1998	1995	1998
Sample size	19	24	10	40	75	40
Total score	5.1	5.5	4.6	4.0	5.3	4.8

Sources: British Columbia: Hunter 1995; New Brunswick: Lyon and Canning 1995; Ontario: Doherty 1995.

increase in mean scores in British Columbia between 1994 and 1998 corresponded with the implementation of wage enhancement grants to centre staff.[9] In contrast, the apparent decline in scores in Ontario and New Brunswick occurred during a period when direct operating grants were eliminated in New Brunswick (1995), and Ontario cancelled capital funding (1995) and capped existing wage enhancement grants (1996). As a result of the capping of wage enhancement grants, new centres were not able to obtain them, nor could centres obtain additional wage enhancement funds should their staff complement increase.[10]

In a U.S. study reported by Sandra Scarr and her colleagues,[11] the mean *ITERS* scores (3.1 in infant classrooms and 3.3 in infant/toddler classrooms) were lower than the mean *ECERS* scores in preschool rooms (4.0). The same pattern was found in the present Canadian study in which infant/toddler rooms had a mean *ITERS* score of 4.4, while the mean *ECERS–R* score was 4.7. Despite variations in the samples, training of observers and the administration of the scales in the two studies, it is interesting to note the consistent disparity between the quality of child care programs for infant/toddler rooms and preschool rooms.

Similar patterns of correlations were also found in the two studies. In both studies, Mean Total scores on *ECERS, ECERS–R* and *ITERS* were highly correlated with their respective sub-scales. Also in both studies, Mean Total scores on *ECERS, ECERS–R* and *ITERS* were highly correlated with adult:child ratio, highest overall level of staff education, highest overall level of ECCE-specific staff education, and wages.

In summary, the data reported in this chapter replicate, confirm and extend descriptive data reported in other similar child care research studies. The main intention of Chapter 5 is to go beyond the descriptive findings reported in the current chapter and to explore the extent to which the variables in this study will predict child care quality.

Notes

1 Helburn 1995; Mill and Romano-White 1999; Whitebook, Howes and Phillips 1990.
2 Harms and Clifford 1990, p. 1.
3 Clifford, Harms and Cryer 1991.
4 A "significant" positive correlation means that two variables are strongly associated with each other. The number ".05" means that this result is reliable 95 times out of 100. The ".01" means that it is significantly reliable 99 times out of 100.
5 Jorde-Bloom 1989; Jorde-Bloom and Sheerer 1992.
6 Harms and Clifford 1980.
7 Doherty 1995; Hunter 1995; Lyon and Canning 1995.
8 Harms, Clifford and Cryer 1998, p. 1.
9 Childcare Resource and Research Unit 2000.
10 Doherty et al. 2000, Appendix E.
11 Scarr, Eisenberg and Deater-Deckard 1994.

Chapter 5

Predictors of Child Care Quality in Canada

The data presented in Chapter 4 *describe* the current levels of quality in Canadian child care centres in terms of the physical, programmatic and emotional environments that were observed in our sample. Chapter 5 moves beyond the description of child care quality and attempts to identify the most critical factors that *predict* child care quality. These data can help to set policy priorities in the quest for quality child care and to identify specific stakeholders who are responsible for the different pieces of the quality puzzle.

This chapter acknowledges both the complex nature of child care quality and that many different factors influence it. The predictor variables included in this study were selected on the basis of:

- previous findings in the child care research literature;
- the importance of certain variables in the Canadian context; and
- the results of the descriptive and correlational analyses reported in Chapter 4.

The statistical analyses reported in this chapter can identify not only *whether* certain variables are significant predictors of quality, but also the *relative importance* of each variable.

5.1 Logistic Regression: Identifying and Predicting the Highest and Lowest Quality Child Care Centres

All the child care centres in the study were ranked from lowest to highest based on their *ITERS* or *ECERS–R* Total scores, and were then sorted into four quartiles.[1] The cut-off scores for each quartile for

both the *ITERS* and the *ECERS–R* are presented in Table 5.1. This procedure created, within both the infant/toddler centres and the preschool centres, a top group with the highest quality scores, a bottom group with the lowest quality scores and two middle groups. If the names of all the child care centres in just the top and bottom groups were put into a hat and one was drawn out at random, we would have a 50% chance of guessing correctly whether that centre was in the highest or the lowest group, since it would have to be in one group or the other.

Table 5.1

Cut-Off Scores on the *ITERS* or *ECERS–R* Total Scores for the Four Quartiles, 1998

	ITERS	*ECERS–R*
Lowest quartile (0-24%)	3.4 and below	3.8 and below
Second lowest quartile (25-49%)	3.5 to 4.4	3.9 to 4.6
Second highest quartile (50-74%)	4.5 to 5.1	4.7 to 5.4
Highest quartile (75-100%)	5.2 and higher	5.5 and higher

The purpose of the logistic regression analyses was to see whether, by providing some additional information about that centre (for example, its auspice or the observed staff member's level of ECCE-specific education), we could improve upon that 50% guesstimate.[2] This technique is widely used in large-scale medical studies[3] that have attempted to predict whether, for example, subjects are in an a t-risk or non-at-risk group based on certain criteria, such as age, gender and frequency of smoking.

The descriptive information on the centres in the four quartiles reveals some differences between the highest- and lowest-ranked child care centres. Tables 5.2 and 5.3 show that there were higher percentages of non-profit centres in the top quartile, and higher percentages of commercial centres in the lowest quartile. Also, observed staff in the top quartile tended to have higher levels of both overall and ECCE-specific education than did observed staff in the bottom quartile (Tables 5.4, 5.5, 5.6 and 5.7).

Table 5.2

Number and Percent of Infant/Toddler Rooms in Each Quartile, by Auspice, 1998

Auspice	Statistic	Top quartile	Second quartile	Third quartile	Lowest quartile	Total
Non-profit	Number	25	25	20	20	90
	Row percent	27.8%	27.8%	22.2%	22.2%	100.0%
Commercial	Number	4	5	8	8	25
	Row percent	16.0%	20.0%	32.0%	32.0%	100.0%
TOTAL	Number	29	30	28	28	115
	Row percent	25.2%	26.1%	24.3%	24.3%	100.0%

Table 5.3

Number and Percent of Preschool Rooms in Each Quartile, by Auspice, 1998

Auspice	Statistic	Top quartile	Second quartile	Third quartile	Lowest quartile	Total
Non-profit	Number	40	41	30	31	142
	Row percent	28.2%	28.9%	21.1%	21.8%	100.0%
Commercial	Number	13	12	22	21	68
	Row percent	19.1%	17.6%	32.4%	30.9%	100.0%
TOTAL	Number	53	53	52	52	210
	Row percent	25.2%	25.2%	24.8%	24.8%	100.0%

Table 5.4

Number and Percent of Observed Staff in Infant/Toddler Rooms in Each Quartile, by Highest Overall Level of Education, 1998

Highest overall level of education	Statistic	Top quartile	Second quartile	Third quartile	Lowest quartile	Total
High school graduation	Number	1	2	7	8	18
	Row percent	5.6%	11.1%	38.9%	44.4%	100.0%
Some post-secondary education	Number	24	24	16	17	81
	Row percent	29.6%	29.6%	19.8%	21.0%	100.0%
B.A. or higher	Number	3	3	5	2	13
	Row percent	23.1%	23.1%	38.5%	15.4%	100.0%
TOTAL	Number	28	29	28	27	112
	Row percent	25.0%	25.9%	25.0%	24.1%	100.0%

Note: The category "some post-secondary education" covers the range from a course to completion of a community college program.

Table 5.5

Number and Percent of Observed Staff in Infant/Toddler Rooms in Each Quartile, by Highest Level of ECCE-Specific Education, 1998

Highest level of ECCE education	Statistic	Top quartile	Second quartile	Third quartile	Lowest quartile	Total
No ECCE education	Number	0	3	4	9	16
	Row percent	0.0%	18.8%	25.0%	56.3%	100.0%
Some post-secondary education	Number	25	23	20	18	86
	Row percent	29.1%	26.7%	23.3%	20.9%	100.0%
B.A. or higher	Number	0	0	4	0	4
	Row percent	0.0%	0.0%	100.0%	0.0%	100.0%
TOTAL	Number	25	26	28	27	106
	Row percent	23.6%	24.5%	26.4%	25.5%	100.0%

Note: The category "some post-secondary education" covers the range from a course to completion of a community college program.

Table 5.6

Number and Percent of Observed Staff in Preschool Rooms in Each Quartile, by Highest Overall Level of Education, 1998

Highest overall level of education	Statistic	Top quartile	Second quartile	Third quartile	Lowest quartile	Total
High school graduation	Number	1	4	8	10	23
	Row percent	4.3%	17.4%	34.8%	43.5%	100.0%
Some post-secondary education	Number	44	40	38	35	157
	Row percent	28.0%	25.5%	24.2%	22.3%	100.0%
B.A. or higher	Number	6	8	6	6	26
	Row percent	23.1%	30.8%	23.1%	23.1%	100.0%
TOTAL	Number	51	52	52	51	206
	Row percent	24.8%	25.2%	25.2%	24.8%	100.0%

Note: The category "some post-secondary education" covers the range from a course to completion of a community college program.

Table 5.7

Number and Percent of Observed Staff in Preschool Rooms in Each Quartile, by Highest Level of ECCE-Specific Education, 1998

Highest level of ECCE education	Statistic	Top quartile	Second quartile	Third quartile	Lowest quartile	Total
No ECCE education	Number	1	1	3	9	14
	Row percent	7.1%	7.1%	21.4%	64.3%	100.0%
Some post-secondary education	Number	45	47	44	36	172
	Row percent	26.2%	27.3%	25.6%	20.9%	100.0%
B.A. or higher	Number	4	3	4	2	13
	Row percent	30.8%	23.1%	30.8%	15.4%	100.0%
TOTAL	Number	50	51	51	47	199
	Row percent	25.1%	25.6%	25.6%	23.6%	100.0%

Note: The category "some post-secondary education" covers the range from a course to completion of a community college program.

Based on the earlier analyses of correlations and on the research literature, we identified a set of possible predictors taken from the Staff Questionnaire, classroom observations and the Centre Questionnaire for the logistic regression analyses. As noted earlier in Section 4.5b, no significant correlations were found between any variables on the Director Questionnaire and either the *ITERS* or *ECERS–R* Total scores.

The possible predictors taken from the Staff Questionnaire and the classroom observations were:

- adult:child ratio in the observed room;
- number of staff in the observed room;

- number of children in the observed room;
- the level of ECCE-specific education of the observed staff member;
- the wages of the observed staff member;
- the observed staff member's satisfaction with colleagues and her/his work environment.

The possible predictors taken from the Centre Questionnaire were:

- the centre is used as a student-teacher practicum site;
- the centre receives subsidized rent and/or utilities;
- the auspice of the centre;
- the level of full-time fees;
- percent of staff in the centre who have at least a certificate or diploma in ECCE.

The question addressed in the logistic regression analyses was whether these variables would help to predict which centres were of the highest quality (in the top quartile) and which were of the lowest.

Three separate logistic regression analyses were performed. Centre quality, the outcome variable in these analyses, was the *ITERS* or the *ECERS–R* Total score. The input, or predictor, variables were those that had been found to be significant in the earlier correlational analyses and/or in other studies of child care quality. The first logistic regression included just the staff and observation variables; these were obtained from the Staff Questionnaire and the classroom observation. The second logistic regression included just the centre variables; these were taken from the Centre Questionnaire. The third logistic regression included the most significant staff and observation variables and the most significant centre variables from the first two regressions. In each analysis the significant predictors are identified in order of the relative strength of each predictor (see Tables 5.8 and 5.10). That is, the first-ranked predictor was the most significant predictor, the second-ranked predictor was the second most significant predictor, and so forth.

5.1a Logistic Regression Analyses on the Infant/Toddler Rooms

The analysis of staff and observation variables revealed that two specific variables were significant predictors of *ITERS* scores in the observed infant/toddler rooms. The first-ranked predictor was the level of ECCE-specific education of the observed staff member and the second-ranked predictor was the number of staff in the observed room. These two variables increased the likelihood of a correct prediction of a centre's quality score — that is, its membership in the top or in the lowest quartile — from 51.6% to 76.7% (see Table 5.8).

The second logistic regression analysis was conducted using the centre variables. The correlational data had shown that higher quality centres had, on average, higher fees than lower quality centres, and that higher quality centres were more likely to be used as student-teacher practicum sites, and to receive subsidized rent and/or utilities, and were also more likely to be non-profit centres than commercial centres. This second logistic regression analysis revealed that all four of these centre

variables — the level of full-time fees, centre is used as a student-teacher practicum site, centre receives subsidized rent and/or utilities, and auspice (in this order) — were significant predictors of centre quality and boosted the likelihood of a correct prediction from 55.7% to 71.2% (see Table 5.8).

The third logistic regression analysis included the two significant staff and observation variables and the four significant centre variables (see Table 5.8). In considering all six of these variables, this third analysis revealed that the following four variables, in order of importance, raised the prediction accuracy from 55.4% to 84.2%. The four variables are:

1. the observed staff member's level of ECCE-specific education;

2. the number of staff in the observed room;

3. the centre is used as a student-teacher practicum site; and

4. the centre receives subsidized rent and/or utilities.

Table 5.9 compares the highest and lowest quartile groups on the key variables that were found to predict quality. We note that a number of these significant variables deal with important and inter-related financial issues: fee level, staff wage level, and the receipt of subsidized rent and/or utilities.

Table 5.8

Summary of the Three Logistic Regression Equations on the *ITERS* Scores: Staff, Observation and Centre Variables, 1998

	Staff and Observation variables	Centre variables	All variables
	1. Observed staff member's level of ECCE-specific education 2. Number of staff in the observed room	1. Level of full-time fees 2. Centre is used as a student-teacher practicum site 3. Centre receives subsidized rent and/or utilities 4. Auspice of the centre	1. Observed staff member's level of ECCE-specific education 2. Number of staff in the observed room 3. Centre is used as a student-teacher practicum site; 4. Centre receives subsidized rent and/or utilities
Prediction accuracy raised:	from 51.6% to 76.7%	from 55.7% to 71.2%	from 55.4% to 84.2%

Note: Each set of predictor variables is listed in order of relative strength.

Table 5.9

Comparison of Highest and Lowest Quartile Groups on Predictor Variables on *ITERS* Total Quality Scores, 1998

Criteria for comparison	Highest quartile	Lowest quartile
Average monthly full-time fees	$601.65	$477.38
Average hourly staff wages	$12.65	$10.28
Average number of children in the observed room	8.5	5.3
Average number of adults in the observed room	3.0	1.8
Average adult: child ratio in the observed room	1:2	1:2
Percent of staff with high school as their highest level of ECCE-specific education	0.0%	38.1%
Percent of staff with some post-secondary as their highest level of ECCE-specific education	100.0%	61.9%
Percent of staff with B.A. or higher as their highest level of ECCE-specific education	0.0%	0.0%
Percent of centres that are used as student-teacher practicum sites	88.2%	66.7%
Percent of centres with subsidized rent and/or utilities	52.9%	23.8%
Percent of centres that are non-profit	88.2%	76.2%
Percent of centres that are commercial	11.8%	23.8%

5.1b Logistic Regression Analyses on the Preschool Rooms

The same analysis plan used in the *ITERS* logistic regression analyses was used in the *ECERS–R* analyses. Since the earlier descriptive and correlational analyses of the preschool classrooms revealed a somewhat different pattern of the results from those found in the infant/toddler classrooms, a somewhat different and more expanded set of variables was included in these analyses.

The most powerful of the staff and observation predictors in preschool rooms was the wage received by the observed teacher. Knowing the teacher's salary improved the accuracy of the model from 53.4% to 65.0%. The next most important predictor was the adult:child ratio in the room, followed by the observed staff member's satisfaction with her/his work environment and colleagues. The satisfaction variable was a composite derived from a number of different questions in the Staff Questionnaire regarding the social, emotional and professional climate of the child care centre as a workplace. As shown in Table 5.10, when all three of these staff and observation variables were combined the ability to correctly predict a centre's quality score rose to 74.2%.

As in the infant/toddler classrooms, specific centre variables also raised the accuracy of predicting a centre's membership in the top or lowest quality quartile. In order of significance the variables were: the level of full-time fees, the percentage of all staff members in the centre who have at least a certificate or

diploma in ECCE, the centre receives subsidized rent and/or utilities, the centre is used as a student-teacher practicum site, and the auspice of the centre. Taken together, these five variables correctly predicted the quality of the centres 81.7% of the time, a significant increase from the 53.6% accuracy that would have resulted from not using these variables.

The third regression analysis, which included the five most significant predictors from the first and second regressions, raised the prediction accuracy from 50.6% to 81.4%. The mean scores upon which the regression analyses are based are presented in Table 5.11.

Table 5.10

Summary of the Three Logistic Regression Equations on the *ECERS–R* Scores: Staff, Observation and Centre Variables, 1998

	Staff and Observation variables	Centre variables	All variables
	1. Observed staff member's wages 2. Adult:child ratio in the observed room 3. Observed staff member's satisfaction with colleagues and work environment	1. Level of full-time fees 2. Percent of all staff members who have at least a certificate or diploma in ECCE 3. Centre receives subsidized rent and/or utilities 4. Centre used as a student-teacher practicum site 5. Auspice of the centre	1. Observed staff member's wages 2. Adult:child ratio in the observed room 3. Observed staff member's satisfaction with colleagues and work environment 4. Level of full-time fees 5. Centre receives subsidized rent and/or utilities
Prediction accuracy raised:	from 53.4% to 74.2%	from 53.6% to 81.7%	from 50.6% to 81.4%

Note: Each set of predictor variables is listed in order of relative strength.

5.1c Summary of the Logistic Regression Analyses

To summarize briefly, the logistic regressions on the *ITERS* scores showed that among staff and observation variables the level of the observed teacher's ECCE-specific education and the number of staff in the observed room were significant predictors of child care quality. Among centre variables the significant predictors were: the level of full-time fees, the use of the centre as a student-teacher practicum

Table 5.11

Comparison of Highest and Lowest Quartile Groups on Predictor Variables on *ECERS–R* Total Quality Scores, 1998

Criteria for comparison	Highest quartile	Lowest quartile
Average monthly full-time fees	$497.15	$430.57
Average hourly staff wages	$12.21	$9.75
Average number of children in the observed classroom	12.1	10.9
Average number of staff in the observed classroom	3.0	2.0
Average adult:child ratio in the observed classroom	1:4	1:5
Percent of staff with high school as their highest level of ECCE-specific education	2.8%	20.0%
Percent of staff with some post-secondary as their highest level of ECCE-specific education	90.2%	77.5%
Percent of staff with a B.A. or higher as their highest level of ECCE-specific education	7.3%	2.5%
Percent of centres used as student-teacher practicum sites	80.5%	65.0%
Percent of centres with subsidized rent and/or utilities	51.2%	17.5%
Percent of centres that are non-profit	80.5%	62.5%
Percent of centres that are commercial	19.5%	37.5%
Average staff "satisfaction" score	13.5	12.1

site, the centre receives subsidized rent and/or utilities, and the auspice of the centre. When both sets of variables were included in one analysis the two most significant predictors to emerge were the level of ECCE-specific training of the observed teacher and the number of staff in the observed room.

The logistic regressions on the *ECERS–R* scores showed that when staff and observation variables and centre variables were combined the most significant predictors of quality were: the wages of the observed staff, the adult:child ratio, the observed staff member's satisfaction with colleagues and the work environment, the level of full-time fees, and the centre receives subsidized rent and/or utilities. We note that a number of these significant variables from the Centre and Staff Questionnaires deal with important — and related — financial issues: fee level, wage level, and subsidized rent and/or utilities.

The fact that no other variables emerged as significant predictors in the final logistic regressions does not necessarily mean they have no relationship to program quality.[4] Other variables may in fact have a significant relationship but a logistic regression may not be the most powerful or sensitive tool to find that relationship. It is for this reason that we again examine the infant/toddler and the preschool classrooms using the path analyses discussed below.

5.2 Path Analyses

The logistic regression analyses are helpful in understanding which variables predict child care quality outcome scores and in determining the relative contributions made by these variables to the quality scores. As demonstrated by the regression analysis, as we learn more information about specific variables we are able to increase our predictability with increasing confidence.

The next step of data analysis, the path analysis, was taken in order to refine further our understanding about the relationships among these variables. Path analysis is a statistical technique that identifies those variables that have a direct impact on quality scores. In addition, once a direct predictor is identified, the analysis can then further trace the "path" to see what other variables may be predicting that particular direct predictor. In this way, the path analysis allows us to identify those variables with a *direct* impact on the *ITERS* or *ECERS–R* scores as well as those with an *indirect* or *mediated* effect. As will be shown below, some variables can be *both* a *direct* predictor and an *indirect* predictor of quality.

There is one critical difference between the logistic regression analyses presented in the preceding section and the path analyses presented in this section. While the logistic regression analyses compared *only* the centres in the highest and lowest quartiles, the path analyses were conducted on data from all of the centres in the study, not just those at the extremes. For this reason, the results from the logistic regression analyses (on the top and bottom quartiles) and the path analyses (on the entire sample) are similar, but not identical.

5.2a Path Analyses for Infant/Toddler Rooms

One of the intriguing things about path analysis is that it not only generates mathematical probabilities, but in fact graphs the relationships among the variables in a way that can make visual sense. For example, in Figure 5.1 we present the first step of the path analysis on the *ITERS* scores. The figure shows those variables that have a *direct* effect on quality in the infant/toddler rooms; these are represented by arrows that point directly to the box labelled "*ITERS* Total scores." Five variables are identified:

- the observed staff member's wages;
- the observed staff member's level of ECCE-specific education;
- the number of staff in the observed room;
- the centre is used as a student-practicum placement site;
- the centre receives subsidized rent and/or utilities.

Of the five direct predictors identified in Figure 5.1, the observed staff member's wages was the most statistically significant direct predictor of child care quality. In tracing the path towards quality, the path analysis then determined the most significant predictor of the observed staff member's wages. As seen in Figure 5.2, there were four variables that were significant predictors of wages:

- the auspice of the centre;
- the level of full-time fees;
- the individual's level of ECCE-specific education; and
- the number of staff in the observed room.

This means that, while neither auspice nor parent fee level had a direct impact upon quality, both of these variables predicted the observed staff member's wages, which *in turn* predicted quality. Figure 5.2 also shows that the individual's level of ECCE-specific education and the number of staff in the observed room

Figure 5.1

Direct Predictors of *ITERS* Total Score, 1998

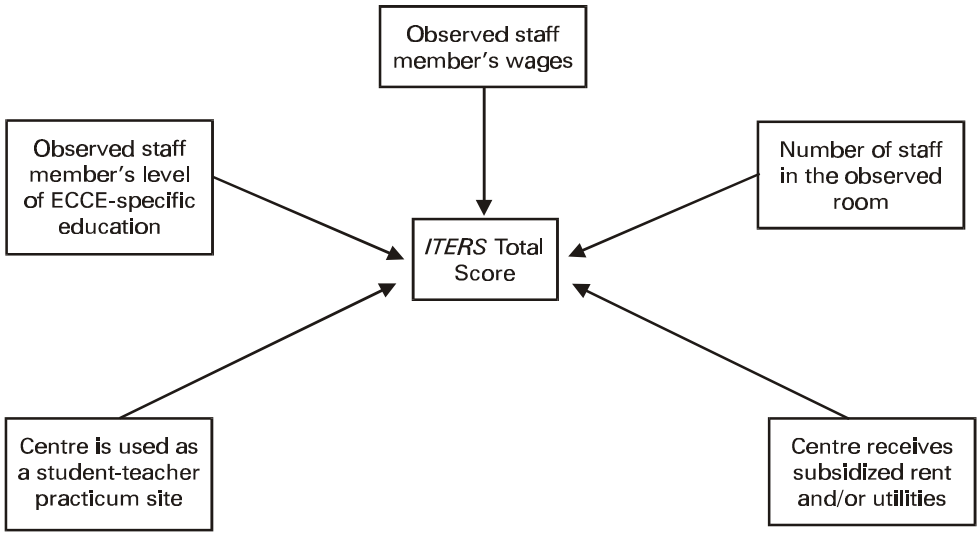
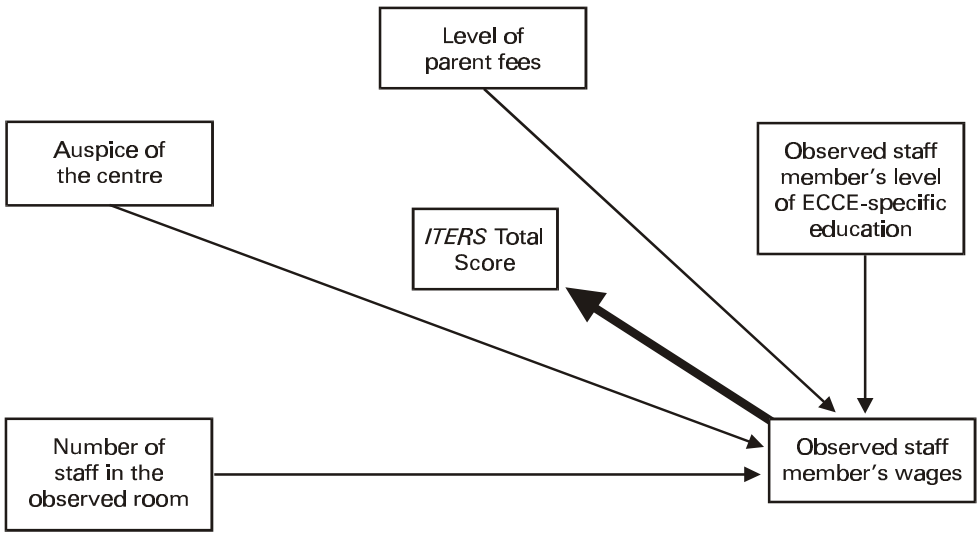


Figure 5.2

Predictors of Wages in Infant/Toddler Rooms, 1998



were *indirect* predictors of quality by virtue of the fact that they predicted wages; this is in addition to their being direct predictors (as illustrated in Figure 5.1). The finding that the number of staff in the observed room also predicted wages suggests that larger centres with more staff may have the financial resources to pay their staff higher salaries. All of the direct and indirect predictors of quality in infant/toddler rooms are illustrated in Table 5.12 and shown in a figure in Appendix G.

5.2b Path Analyses for Preschool Rooms

The path analyses in the preschool rooms revealed results similar to those found in the infant/toddler rooms; however, there were a number of unique characteristics that distinguished the rooms of the older and the younger children. As shown in Figure 5.3, seven direct predictors of quality in the preschool rooms are identified:

- the observed staff member's wages;
- the observed staff member's level of ECCE-specific education;
- the observed staff member's level of satisfaction with the work environment and her/his colleagues;
- the number of staff in the room at the time of the observation;
- the adult:child ratio at the time of the observation;
- the centre is used as a student-teacher practicum site;
- the centre receives subsidized rent and/or utilities.

The observed staff member's wage level again was the most significant predictor of quality in the preschool rooms. It was also predicted by the same four variables that predicted wages in the infant/toddler rooms: the auspice of the centre; the level of full-time fees; the individual's level of ECCE-specific education; and the number of staff in the observed room (see Figure 5.4). All of the direct and indirect predictors of quality in the preschool rooms are illustrated in Table 5.12 and shown in a figure provided as Appendix H.

There are a number of subtle and striking differences in the path analyses conducted on the infant/toddler rooms and the preschool rooms. Auspice, for example, predicted the wages of the observed staff person and whether the centre received subsidized rent and/or utilities in both age groups. In the preschool rooms, the data show that auspice also predicted the level of full-time fees and the use of the centre as a student-teacher practicum site. Adult:child ratio was a direct predictor of quality in the preschool rooms, but in the infant/toddler rooms the effect of ratio was *indirectly* mediated through parent fee level, the wage of the observed staff and the number of staff in the observed room. In both path analyses the level of full-time fees predicted wages but was not a direct predictor of quality scores.

Perhaps the most striking difference between the two path analyses is the role played by the attitude of the observed staff members towards their work. Questions were asked about four different clusters of attitudes: attitudes towards their wages and benefits; attitudes towards their colleagues — for example, whether they felt supported by their co-workers; attitudes towards the work environment; and attitudes towards the person or group to whom they were responsible. The correlational analyses revealed significantly high positive correlations among all four of these areas. That is, staff who had positive attitudes in one area very likely also had positive attitudes in the other three. In the course of the correlation, logistic regression and path analyses, two of these variables were extremely highly correlated and were always identified as the most significant attitudinal factors. These two attitudinal factors — attitudes towards their colleagues and attitudes towards their work environments — were combined to create one composite attitude variable, and it was this variable that emerged as a significant predictor of child care quality.

Figure 5.3

Direct Predictors of *ECERS–R* Total Score, 1998

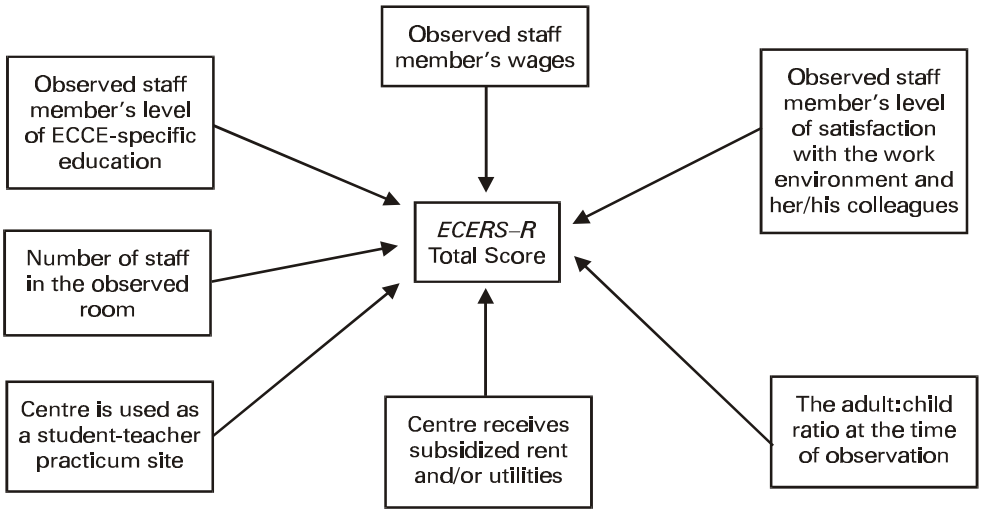
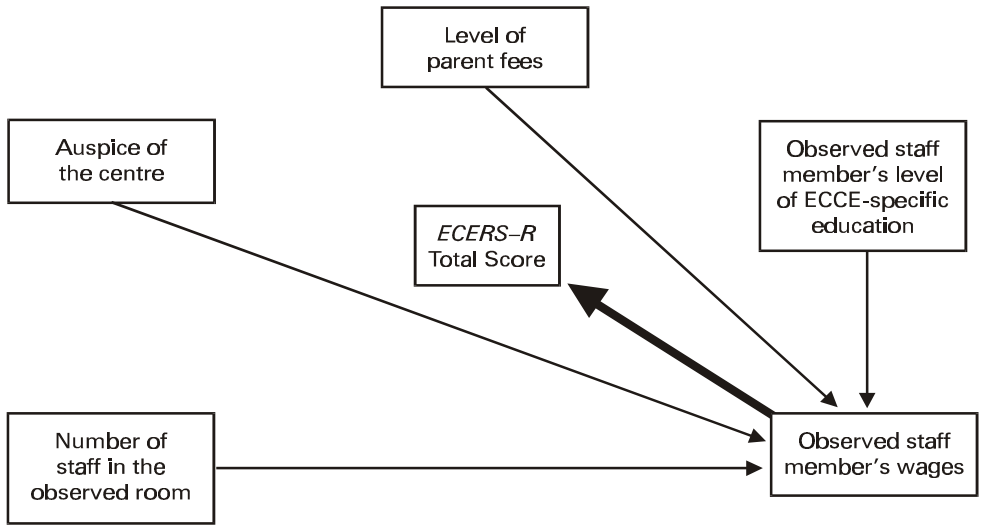


Figure 5.4

Predictors of Wages in Preschool Rooms, 1998



5.3 Summary of the Logistic Regression Analyses and the Path Analyses

In this chapter we have presented analyses on the variables that predict child care quality, and a summary of these analyses is presented in Table 5.12. The data presented in this chapter provide additional insight into the identification of those variables that predict child care quality. These analyses demonstrate not only which variables are important predictors, but also the relative weight of each of these predictors; and they demonstrate a determination of which variables contribute directly towards quality and which variables contribute more *indirectly* by impacting on intermediate variables that in turn serve as direct predictors of quality. Some variables serve as both direct and indirect predictors. The implications of these results for policy and practice are presented in Chapter 6, as are recommendations.

Table 5.12

Summary of Significant Direct and Indirect Predictors of *ITERS* and *ECERS–R* Total Scores, 1998

Type of Predictors	*ITERS*	*ECERS–R*
Direct predictors of *ITERS* or *ECERS–R* Total scores	1. Observed staff member's wages 2. Centre is used as a student-teacher practicum site 3. Centre receives subsidized rent and/or utilities	1. Observed staff member's wages 2. Observed staff member's level of satisfaction with colleagues and the work environment 3. Adult:child ratio at the time of observation 4. Centre is used as a student-teacher practicum site 5. Centre receives subsidized rent and/or utilities
Direct AND Indirect predictors of *ITERS* or *ECERS–R* Total scores	1. Observed staff member's level of ECCE-specific education 2. Number of staff in the observed room	1. Observed staff member's level of ECCE-specific education 2. Number of staff in the observed room
Indirect predictors of *ITERS* or *ECERS–R* Total	1. Auspice of the centre 2. Level of full-time fees	1. Auspice of the centre 2. Level of full-time fees

Note: Each set of predictor variables is listed in order of relative strength.

Notes

1 The *CIS* scores were not used for a number of reasons. First, both the *ITERS* and *ECERS–R* Total scores showed significant positive correlations with the *CIS* scores on sensitive caregiving, and significant negative correlations with the *CIS* scores on Harshness and Detachment. Second, among the three *CIS* scores, only the Sensitivity scale generated a sufficient range of scores to make it feasible to do a regression analysis.

2 Hosmer and Lemeshow 1989; Kleinbaum 1998.

3 For example, Wasson, Sox, Neff and Goldman 1985.

4 Part of this may be due to the issue known in statistics as "shared variance" — when two variables are both significant and are both highly correlated with one another. For example, we know that auspice and subsidized rent or utilities are highly correlated since a much higher proportion of non-profit centres receive these subsidies than do commercial centres. However, when both variables are included in the same analysis in combination with other variables, the slightly more powerful predictor — subsidized rent/utilities — "knocks out" auspice since the two variables share a tremendous amount of the same variance in the equation.

Chapter 6

Towards a Model of Child Care Centre Quality in Canada

6.1 Introduction

The data in this report confirm and extend the findings of previous child care research studies in Canada, the United States and elsewhere. In the Canadian context, the study builds on *Caring for a Living,*[1] a survey of wages and working conditions in Canadian centres conducted in 1991; *Our Child Care Workforce: From Recognition to Remuneration*,[2] a human resource study of family- and centre-based child care in Canada published in 1998; and *You Bet I Care!,*[3] a Canada-wide survey on wages, working conditions and practices in child care centres conducted in 1998. Each of these studies provided much-needed information on child care staff across Canada. In addition, research has been conducted in several Canadian jurisdictions on characteristics of the child care workforce that has also included measures of program quality and observations of adult-child interactions.[4]

The present report documents the findings of the largest, most systematic and most multi-jurisdictional Canadian study to have addressed the relationships between centre quality and: (1) centre characteristics; (2) staff wages and working conditions; (3) staff characteristics and attitudes. Data were collected from a total of 234 centres in six provinces and one territory. In previous chapters we have presented the results and the statistical analyses of the data. In this chapter we bring together all the different threads, themes and findings reported earlier to discuss what the data mean, both currently and in terms of future child care policy and practice in Canada. We also make specific recommendations regarding the regulable, financial, administrative and attitudinal predictors of the level of quality in a child care centre.

6.2 Quality Child Care: A Crucial Component in Addressing Broad Societal Goals

Quality child care is recognized as a crucial component in addressing broad societal goals by people in education,[5] by economists[6] and by other groups not ordinarily involved with child care issues. The National Forum on Health, comprising authorities from the medical community, has stated that, "The negative effects of poor quality child care and the positive effects of high quality child care have an impact on children regardless of social class. Access to affordable, high quality care and education should be accessible to all."[7] Similarly, the National Crime Prevention Council has noted that high quality child care assists children to learn social skills, to combat their aggressive tendencies, and to respect authority. The Council concluded that quality child care services are an important delinquency prevention initiative that should be available to all children.[8] In a 1999 report, the National Council of Welfare notes that children are poor because their families are poor, and improving family income is the only way to address children's poverty. The report states that, "Any social policy that is serious about supporting children and families must have child care at its centre. Good child care makes an enormous difference in the ability of poor families to find and keep jobs."[9]

6.3 Child Care Quality in Canada

Major strengths of the study on which this report is based are its systematic and standardized use of questionnaires, observations and training procedures to examine quality, and its examination of the influence on quality of a wide range of variables. Some of these variables focused on regulable aspects of child care, while others focused primarily on the wages, benefits and working conditions of staff. The study also collected detailed information on child care centre programs and policies, and on teaching staff attitudes and job satisfaction. The data provide an accurate profile of the level of quality of centre-based care, at least in the jurisdictions in which information was collected (Alberta, British Columbia, New Brunswick, Ontario, Québec, Saskatchewan and the Yukon).

6.3a Reasons for Optimism

The data from this study confirm and extend one of the major conclusions reported in Study 1 of the *You Bet I Care!* project,[10] namely that ***the major asset in Canadian child care today is the dedicated, enthusiastic and incredibly hard-working workforce.*** Child care staff invest a tremendous amount of time and energy in doing their jobs to the best of their ability under extremely difficult conditions with minimal financial resources, inadequate compensation and little respect. It is the child care workforce that serves as the major engine on the road towards achieving quality child care in Canada, and it is the nature of the difficult and restrictive conditions under which the workforce operates that is the major obstacle to quality.

The results of the dedication and hard work of the child care workforce can be seen in the scores on the *Caregiver Interaction Scale (CIS)* reported in Table 4.1. These scores indicate high levels of warm, attentive and engaged teacher behaviour with children and, in most cases, low levels of harshness and detachment. The *CIS* scores, along with the scores from the *Infant/Toddler Environment Rating Scale (ITERS)* and the *Early Childhood Environment Rating Scale–Revised (ECERS–R),* reported in Tables 4.4 and 4.6, indicate that physically safe environments with caring, supportive adults are the norm in the majority of centres. Forty-four percent of preschool rooms, although only 20.7% of infant/toddler rooms,

are also providing developmentally appropriate activities and materials that stimulate children's social, language and cognitive development, thereby setting the stage for school readiness. While the existence of a high proportion of centres that do not provide this level of quality is of concern, as discussed below, there is reason for optimism in the finding that some centres do provide programs that support and stimulate children's development.

While direct comparisons must be approached with caution, it is instructive to compare our study with two recent U.S. multi-state studies, in terms of both the level of quality found and the observed ratios and group sizes. In so doing, it is essential to recognize that whatever contrasts exist apply only to comparisons between the *average* quality of care in those specific U.S. and Canadian jurisdictions that provided the samples in the respective studies. With this caution in mind, we note that quality scores were higher and the ratios and group sizes more favourable in our study than in either American study (see Tables 6.1 and 6.2). In our opinion, the more stringent regulations for ratio and group size found in most Canadian jurisdictions relative to American states, and reflected in the actuals observed, are reasons for optimism since they are major reasons for the higher level of quality that we found.

The first comparison is between our study and the *Cost, Quality and Child Outcomes (CQO)* study[11] conducted in 400 centres across four states. Both studies used the *CIS.* The scores for each of the three *CIS* sub-scales can range from 1 to 4. High scores on Sensitivity are desirable while high scores on the other two sub-scales are not. As illustrated in Table 6.1, scores on Sensitivity were higher in our *You Bet I Care!* sample, while scores on Harshness and Detachment were lower. Both the number of children per adult and group size were lower in the infant/toddler and preschool rooms in our study.

The second comparison is between our study and one conducted in 363 rooms across three states by Sandra Scarr and her colleagues.[12] As illustrated in Table 6.2, adult:child ratios and the number of children in the observed room were more favourable in our *YBIC!* sample. For example, the average adult:child ratio in our infant/toddler rooms (1:2.6, or one adult for every two or three children) was better than the U.S. ratios both in infant rooms (1:3.8) and in toddler rooms (1:5.2). Similarly, group sizes were smaller in our sample, and the *ITERS* and *ECERS–R* mean Total scores were higher than the American study's *ITERS* and *ECERS* Total scores.

Table 6.1

Comparison of Mean *CIS* Scores, Observed Group Sizes, and Adult:Child Ratios, between the *YBIC!* and the U.S. *CQO* Studies

Criteria for comparison	Infant/toddler rooms		Preschool rooms	
	YBIC!	***CQO***	***YBIC!***	***CQO***
CIS Sensitivity	3.28	2.70	3.25	2.70
CIS Harshness	1.41	1.50	1.28	1.80
CIS Detachment	1.14	1.70	1.38	1.70
Mean number of children in the observed room	6.80	8.00	11.52	13.70
Mean adult:child ratio in the observed room	1:26	1:40	1:48	1:60

Source: Helburn 1995, Tables 6.1 for *CIS* scores, 6.10 for observed ratio, and 6.11 for group size.

Table 6.2

Comparison of Mean Total *ITERS* and *ECERS* or *ECERS–R* Scores, Observed Group Sizes, and Adult:Child Ratios, between the Scarr et al. Study, and the *YBIC!* Study

Criteria for comparison	Study	Rooms	Results
Mean Total *ITERS* scores	Scarr et al.	Infant rooms	3.19
	Scarr et al.	Toddler rooms	3.38
	YBIC!	*Infant/toddler rooms*	*4.40*
Mean Total *ECERS* or *ECERS–R* scores	Scarr et al.	Preschool rooms	4.03
	YBIC!	*Preschool rooms*	*4.70*
Mean number of children in the observed room	Scarr et al.	Infant rooms	8.20
	Scarr et al.	Toddler rooms	10.93
	YIBC!	*Infant/toddler rooms*	*6.80*
	Scarr et al.	Preschool rooms	14.24
	YIBC!	*Preschool rooms*	*11.52*
Mean adult:child ratio in the observed room	Scarr et al.	Infant rooms	1:3.8
	Scarr et al.	Toddler rooms	1:5.2
	YIBC!	*Infant/toddler rooms*	*1:2.6*
	Scarr et al.	Preschool rooms	1:7.0
	YIBC!	*Preschool rooms*	*1:4.8*

Source: Scarr, Eisenberg and Deater-Deckard 1994, Table 1.

Note: In the U.S. study, infant and toddler rooms were observed separately, while in our *YBIC!* study the majority of rooms were combined infant/toddler rooms. Both Scarr et al. and our study used the *ITERS;* however, while we used the more recent *ECERS–R,* the American study used the *ECERS.*

To sum up, the data from our sample suggest that the majority of centres were providing a level of care that meets children's basic needs for physical and emotional safety. The favourable adult:child ratios and group sizes appear to be major reasons for this strong baseline of care. While ratio and group size cannot on their own ensure child care quality, they appear to provide a certain minimal baseline of "custodial" care that is essential to protect children's health and safety. Thus the generally stringent regulations regarding ratio and group size in Canada may serve to explain why in our study relatively few infant/toddler rooms (7.8%) and preschool rooms (7.1%) received quality scores in the "inadequate" range on the *ITERS* and *ECERS–R*. In contrast, a four-state U.S. study that used the *ITERS* and *ECERS* in 501 centres, reports that 12.3% of those centres scored in the "inadequate" range. The researchers note, "States with more demanding licensing standards have fewer poor-quality centres."[13] Regulations may be a buffer that can move the quality of centre care from inadequate to minimal, but without the contribution of the other critical factors — adequate wages, financial stability, staff with ECCE-specific education — the centre cannot move beyond the level of minimal/mediocre to the provision of a high quality, sensitive, stimulating and developmentally appropriate child care environment.

6.3b Reasons for Concern

Despite the relatively encouraging data on the *CIS*, the results from the *ITERS* and the *ECERS–R* are cause for serious concern (see Tables 4.4 and 4.6 for the scores and Figures 4.2 and 4.4 for their significance). While the combined *CIS* and *ITERS/ECERS–R* results indicate that basic ***custodial care*** — physically safe

environments with caring adults — is the norm in most child care centres, the *ITERS* and *ECERS–R* results indicate that centres providing "good" levels of ***developmentally appropropriate child-centred programming*** are the exception, not the rule. When "developmentally appropriate child-centred programming" is provided:

- The children have access to materials and participate in activities that stimulate their emotional, social, language, and intellectual development.
- These materials and activities stimulate exploration and growth through oral and written language, art, music, dramatic play, fine and gross-motor play, and free play.
- The child care staff plans activities and the use of materials appropriate to the children's level of development, the children's needs and interests, and the children's temperaments and individual differences.
- The child care staff uses its expertise in child development and curriculum development to provide both open-ended and structured learning and exploration activities.
- The materials and activities reflect and respond to different levels of development among the children, to different cultural and language backgrounds, and to differing levels of ability.
- The materials and activities are offered through a range of interpersonal settings: small group, large group, individual, dyad and triad.

This list identifies some of the factors that differentiate safe and "minimal to mediocre quality" caregiving from "good" quality programs that also provide exciting and meaningful experiences for young children, and these are the criteria upon which the *ITERS* and *ECERS–R* scores are based. Overall, the study found that the majority of all centres in our sample obtained a Total score below 5.0, the cut-off between "minimal" or "mediocre," and "good" quality child care. Further, of the infant/toddler rooms that were observed in the study, 71.3% fell below the score of 5.0, as did 55.7% of the preschool-age rooms.

> ***The generally low to minimal/mediocre levels of child care quality revealed in this study should be a major and focal concern among politicians, policy analysts, advocates, educators and parents in Canada today.***

At a time when there is increasing and convincing evidence of the importance of developmentally appropriate stimulation, caregiving and education for children aged 0 to 5, many child care programs in Canada are providing what can be described at best as "minimal" or "mediocre" levels of care. Of even greater concern is the fact that, overall, programs delivered to the youngest children — aged 0 to 3 — are in fact of even lower quality than those delivered to the older, preschool children aged 3 to 5.

These *ITERS* and *ECERS–R* findings are of concern for a number of reasons. First, it is simply unacceptable to have low to mediocre levels of quality in the majority of settings providing a major educational and social service for young children during their most vulnerable and developmentally sensitive years. ***The care and developmentally appropriate stimulation of our youngest citizens is of great importance — children's well-being and development demand that we provide quality, not mediocrity***.

The second concern arises from the likelihood that the centres in the Study 2 sample are of higher quality than those found in the population of child care centres as a whole. This assumption is supported by comparisons on certain key predictors of quality in the Study 1 and Study 2 samples, and between the observed and non-observed samples within Study 2. In Study 1, 74.8% of all centres were used as student-teacher practicum sites, compared to 77.2% of centres in Study 2. In Study 1, 27.0% of centres had free or subsidized rent and/or utilities, compared to 33.2% in Study 2. Study 2 had a lower percentage of commercial centres (32.0%) than did Study 1 (34.78%). Furthermore, as illustrated in Tables 3.7 to 3.11, the observed staff in Study 2 had higher levels of education than both non-observed staff in Study 2 and the staff respondents in Study 1.

As noted earlier, survey, questionnaire and observational research that depends upon self-selected participation recognizes that the participants in these studies are likely to be more confident, better educated and more highly motivated than are those who decline to participate. The researchers who conducted the U.S. *National Child Care Staffing Study,* which has many similarities to our study in sampling, design and instrumentation, concluded that their sample indeed reflected a bias toward the better quality child care centres in the population.[14] When discussing the self-selected sample in the *CQO* study, Vandell and Wolfe wrote: "This distribution of quality scores in the observed settings, however, may be an optimistic view. The observed centers represented only 52 percent of the eligible centers, the remainder declined to participate. It seems likely that the nonobserved settings offered care that was lower in quality."[15]

Based on this likelihood that the centres in our Study 2 sample were among the "cream of the crop" — which, as we saw, is characterized by a low to minimal/mediocre distribution of quality scores — our findings raise even more serious concerns about those probably lower quality centres that were not included in the study.

We have a final word, however, regarding the above-noted reasons for concern:

> ***It is our firm belief that child care quality in Canada can be enhanced with the help of coherent, coordinated and collaborative policies. We believe that, given the commitment and political will, Canadian children and families can have access to high quality child care programs within the very foreseeable future.***

Getting from "here" to "there" is eminently do-able. Later, in Section 6.5, we outline the different categories of quality predictors. In Section 6.6 we present our recommendations for remediation of the current situation.

6.4 Predictors of Quality: A Dynamic Interaction of Different Kinds of Variables

In Chapters 4 and 5, the correlational, regression and path analyses consistently identified a set of variables which, taken together, can predict the quality of centre-based child care programs with convincing statistical accuracy. In all of the analyses it was very clear that "good things go together." Child care quality is the result of a dynamic interaction of different kinds of variables. These include but are not limited to: (1) adult work environment variables (e.g., wages and the adult:child ratio); (2) staff

Table 6.3

Summary of Significant Correlations between *CIS* Scores and Selected Staff and Centre Variables in Infant/Toddler and Preschool Rooms, 1998

***CIS* scores in infant/toddler rooms**		
Staff were ***more sensitive*** towards the children when ***staff*** had: • higher wages • higher benefits • higher levels of job satisfaction and when ***centres:*** • were used as student-teacher practicum sites • received subsidized rent and/or utilities • were non-profit	Staff were ***less harsh*** towards the children when ***staff:*** • worked fewer hours of unpaid overtime and when ***centres:*** • had favourable adult:child ratios • were non-profit	Staff were ***less detached*** towards the children when ***staff:*** • were more sensitive • were less harsh
***CIS* scores in preschool rooms**		
Staff were ***more sensitive*** towards the children when ***staff:*** • had higher wages • had better benefits • had more years of ECCE-specific education • had worked in child care for more years • had higher levels of satisfaction with co-workers • worked fewer hours and when ***centres:*** • had favourable adult:child ratios • were used as student-teacher practicum sites • received subsidized rent and/or utilities • were non-profit	Staff were ***less harsh*** towards the children when ***staff:*** • had received an increase in wages in the previous two years and when ***centres***: • had favourable adult:child ratios	Staff were ***less detached*** towards the children when ***staff:*** • had higher wages • worked fewer hours • were more sensitive • were less harsh and when ***centres:*** • had increased wages in the previous two years • were non-profit

variables (e.g., staff level of ECCE-specific education and staff members' level of satisfaction with their work environment); (3) centre financial variables (e.g., level of parent fees, whether the centre receives subsidized rent and/or utilities); and (4) administrative variables (e.g., whether the centre is used as a student-teacher practicum site).

6.4a Variables that Contribute to the Quality of Interaction Between Adult and Child

The levels of sensitivity, harshness and detachment observed among teaching staff were not isolated variables, but were found to correlate in predicted directions with a number of important contextual and personal variables (see Chapter 4). A summary of these correlations, presented above in Table 6.3, reveals that staff wages and working conditions and centre financial variables were associated with the degree to which teaching staff were observed in sensitive, harsh or detached interactions with the children in their care.

These findings are consistent with those reported in a recent Canadian study of affectionate behaviour displayed by teaching staff in child care centres.[16] Staff demonstrations of affection were related to ratings of the work environment, job rewards, job concerns and the degree of supervisor support. Level of ECCE-specific education was found to be a moderator — an indirect predictor — of the staff member's ability to function under adverse conditions without resorting to anger. Staff with little ECCE education were most likely to be less affectionate when other risk factors were present. The researchers note:

Table 6.4

Summary of Significant Direct and Indirect Predictors of *ITERS* and *ECERS–R* Total Scores, 1998

Type of Predictors	*ITERS*	*ECERS–R*
Direct predictors of *ITERS* or *ECERS–R* Total scores	1. The observed staff member's wages 2. The centre is used as a student-teacher practicum site 3. The centre receives subsidized rent and/or utilities	1. The observed staff member's wages 2. The observed staff member's level of satisfaction with colleagues and the work environment 3. The adult:child ratio at the time of observation 4. The centre is used as a student-teacher practicum site 5. The centre receives subsidized rent and/or utiliites
Direct AND indirect predictors of *ITERS* or *ECERS–R* Total scores	1. The observed staff member's level of ECCE-specific education 2. The number of staff in the observed room	1. The observed staff member's level of ECCE-specific education 2. The number of staff in the observed room
Indirect predictors of *ITERS* or *ECERS—R* Total scores	1. Auspice of the centre 2. Level of full-time fees.	1. Auspice of the centre 2. Level of full-time fees

Note: Each set of predictor variables is listed in order of relative strength.

"[T]hough work environment did not relate directly to anger, aspects of the work environment did correlate with job perceptions which then correlated with anger. Centers that were for-profit and had larger classes, lower wages and more children on subsidies also had educators who perceived that they had few job rewards, less job satisfaction, less supervisor support, more burnout and more job concerns. ... In summary, it appears that the explanation that best accounts for caregiver anger with the children is whether or not the educator perceives that she is in a supportive environment."[17]

6.4b Predictors of Overall Quality in a Room

The findings summarized in Table 6.4 relative to the *ITERS* and the *ECERS–R* also illustrate that overall quality is the result of a dynamic interaction of different kinds of variables. This is consistent with the findings of other studies. The U.S. *National Child Care Staffing Study*[18] used very similar instruments in its examination of 227 centres, as did the *CQO* study[19] in its research involving 400 centres. Both studies found that staff wage level, staff levels of ECCE-specific education and adult:child ratios were significant predictors of quality.

6.5 Four Categories of Predictors of Child Care Quality: Regulable, Financial, Administrative and Attitudinal

The direct and indirect predictors of quality presented in Table 6.4 impact on child care quality in different ways and at different systemic levels. In order to discuss the practical implications and applications of our findings we have categorized the predictor variables into four related but distinct categories: (1) regulable, (2) financial, (3) administrative, and (4) attitudinal (see Table 6.5).

One of the distinctive features of this study is the ability to go beyond the identification of significant individual predictor variables of quality and to explore the dynamic interaction among all of these variables. What emerges from this data set is not a matter of simple uni-directional relationships between predictors and outcomes, but a multidirectional web that begins to describe and explain the complex interactions among the predictors. We make this point yet again because it is important in terms of research, policy and practice; it indicates quite clearly that improvements to the quality of child care in Canada will depend upon addressing this complex interaction itself, not just addressing one or two variables.

Table 6.5

Four Categories of Direct and Indirect Predictor Variables of Quality in Centre-Based Child Care

Regulable	Financial	Administrative	Attitudinal
• Staff members' level of ECCE-specific education • Adult:child ratio • Auspice	• Staff wage level • Subsidized rent and/or utilities • Level of full-time fees	• Centre is used as a student-teacher practicum site • Number of adults in the room	• Staff satisfaction with their work environment and relationships with colleagues

6.5a What We Learned about Regulable Variables

Three aspects of child care regulation were found to predict child care quality: **staff level of ECCE-specific education, adult:child ratio,** and **the auspice of the centre**.

Our study's findings speak very strongly to the importance of the regulable factors of ratio, group size and staff levels of ECCE-specific education. Centres in which there were advantageous adult:child ratios, and in which staff had higher levels of ECCE-specific education, had higher quality child care programs. Centres in British Columbia, which has among the strongest regulations on ratio, group size and staff ECCE education levels, had consistently higher *ITERS* and *ECERS–R* scores than programs in provinces with weaker regulations, such as New Brunswick (see Tables 4.4 and 4.6). In the comparison of our findings with those of two U.S. studies, the American centres, with their overall less favourable ratios and larger group sizes, obtained scores indicating poorer levels of adult:child interaction as measured by the *CIS,* and lower scores on the *ITERS* and *ECERS–R* (Tables 6.1 and 6.2).

In all the analyses, non-profit centres had higher levels of quality than commercial centres. Auspice itself did not directly predict child care quality, but non-profit centres had consistently higher levels of staff wages, parent fees and subsidized rent and/or utilities than commercial centres. Each of these three variables did predict quality. As found in Study 1, commercial centres are less likely than non-profit centres to receive subsidized rent and/or utilities and are also less likely to receive government operating grants because, in some provinces, these are restricted to the non-profit sector. The heavy reliance by commercial centres on parent fees for their revenue may account in part for the lower wages they pay, which, in turn, may in part explain the lower average quality associated with commercial auspice. Furthermore, it is important to note that the distribution of centre auspice varies across jurisdictions, with a tendency for a larger proportion of commercial centres to be in jurisdictions with lower requirements for staff ECCE-specific education levels. In short, the association of poorer quality with commercial auspice may reflect, in part, the ways in which auspice is contextualized within, and confounded by, the regulatory contexts in which these centres operate.

6.5b What We Learned about Financial Variables

Although a critical piece of the puzzle, child care regulations do not ensure child care quality, but rather appear to provide a minimal "floor" upon which quality programming must be built with other factors. The most significant predictor variable in the entire study was the level of **wages** paid to the observed staff member. This result confirms the findings in two large U.S.-based studies.[20] Wages are largely a product of the fees received for each child, either directly from parents or through child care subsidies, and government wage enhancement and/or operating grants. As was observed in the *YBIC!* Study 1 report, centres are constrained in the extent to which they can raise fees by the need to keep spaces full in order to maintain the centre's financial viability. Thus, government involvement will be essential if the wage issue is to be addressed adequately.[21]

A second critical financial variable is the extent to which centres receive **subsidized rent and/or utilities**. Wages are the largest budget item for centres and rent (or mortgage) payments are the second largest. As in the U.S. studies cited above, the net effect of the subsidization of rent

(mortgage) or utilities is to free up desperately needed cash that can then be applied towards staff wages — the single most critical variable that predicts child care quality.

6.5c What We Learned about Administrative Variables

Two **administrative** factors were found to predict child care quality: whether the **centre is used as a student-teacher practicum site** and the **number of staff in the room**. Centres that accept student placements are more likely to be higher quality child care programs. One explanation for this might be that the colleges, universities and other post-secondary institutions seek out high quality centres for student practicum sites. Accepting student placements may also indicate a commitment by the centre director and staff to providing learning opportunities for the next generation of child care professionals. Having students on placement might also encourage reflective practice among all staff and can provide access to faculty who are able to give additional consultation to staff.

We also note that student placements provide a centre with additional people who have at least some formal ECCE-specific training. In this way, serving as a practicum site provides for a more favourable adult:child ratio without reducing wages. Thus, student placements may be closely tied to the other administrative factor that predicts quality: the number of staff in the observed classroom.

6.5d What We Learned about Attitudinal Variables

One of the intriguing findings in this study was that quality in preschool rooms was predicted by specific staff **attitudinal** factors. These were: (1) the observed teacher's satisfaction with her relationship with colleagues, and (2) her satisfaction with the centre as a work environment. A recent Québec study reports similar findings.[22] The teachers in that study were split into two groups: one with a high score on a scale measuring anger towards children, and the other composed of people with a low score on the same variable. There was a moderate association between high or low anger scores and the teacher's satisfaction with aspects of the job such as recognition, freedom to make decisions and supervisor support. Attitudes are obviously critical and they appear to be closely tied to financial factors, wages in particular, and to ratio — both factors that were found in the current study to predict quality. The Québec study also reports an association between the extent of teacher affectionate behaviour towards children, and both wages and the number of children for whom the teacher was responsible.

The findings of our study clearly document the importance of the work environment, both relationships among staff and working conditions such as wages, and adult:child ratio. While co-worker relationships cannot be regulated, other aspects of the work environment, such as ratio, can be. Wage levels are clearly influenced by financial factors such as the presence or absence of government operating and/or wage enhancement grants. While none of the director variables in this study was found to impact statistically upon program quality, it makes eminent sense to infer, given the importance of the director's role in setting and maintaining the professional and emotional climate of the workplace, that directors play a key role in the satisfaction levels expressed by the staff in their centres, satisfaction levels that ultimately impact on the quality of the care in those centres. A U.S. study found that teaching staff in centres where directors have received specific training in staff development and supervision and in general administration, express more positive attitudes about their centre as a work environment.[23] The teaching staff in such centres were also found to be more positive and supportive when interacting with children.

6.6 Recommendations

The data reported in this study represent the first substantive Canada-wide research that can provide guidance for the development and implementation of programs and policies to enhance the current level of quality in Canadian child care centres. Before venturing forth with our policy recommendations, however, we wish to articulate three guiding principles very clearly.

First, there must be a concerted and sustained public and political will to create more and better child care programs for the children and families who are served by them. This political will must manifest itself in raising child care to a more visible and active place on the agendas of the federal, provincial and territorial governments, and in viewing high quality child care services as a positive investment in children, families and communities.

Second, there must be coordination among ministries and departments, and between all levels of government. For too long child care policy has floated among and between various government departments. Child care touches on many aspects of child and family policy that include but are not limited to health, education, labour and social services. Coordination is needed to ensure that a reasonable, rational, consistent and complementary set of incentives is introduced across government departments. We note that the federal, provincial and territorial governments are currently engaged in establishing an action plan for a National Children's Agenda[24] and we sincerely hope this initiative will include a coherent plan for supporting quality child care services across Canada.

Third, the extreme variation in both child care policies and child care quality across jurisdictions must be addressed. The differences in such areas as adult:child ratio, group size and required levels of ECCE-specific education for staff contribute to the variations in quality observed in this study. It is essential that ***all*** children, regardless of where they live or their family's income level, have access to high quality early childhood education and care programs that not only protect their emotional and physical well-being, but also support and encourage their development. We strongly urge municipal, provincial, territorial and federal governments to examine the ways in which child care policy and regulation in their respective mandates can respond to our findings on the predictors of quality child care programs.

We present our recommendations in the same categories in which we discussed our data: the regulable, financial, administrative, and attitudinal components of quality child care. While this categorization serves as a tidy way to organize a discussion about what is required for quality child care, we remind the reader that, in fact, these variables all cross over and have direct and indirect impacts on each of the other categories presented below.

6.6a Recommendations on Regulable Variables

The results of this study, together with those of other large- and small-scale child care research projects, reiterate the importance of formal education in early childhood education and care. The individual teacher's level of ECCE-specific education — and the number of staff in a centre with ECCE training

— contribute significantly to a program's level of quality. For this reason, it is imperative that provinces and territories review and, if necessary, revise their jurisdictional requirements for the levels of ECCE-specific education for teaching staff who work in child care centres.

As reported in Study 1, there is a trend towards higher levels of staff education. The percentage of staff who had already completed a two- or three-year ECCE course or post-diploma credential was found to have risen dramatically, from 31.0% in 1991 to 60.4% in 1998.[25] This demonstrates a recognition of the importance of training by the professionals themselves, a recognition that is not always reflected in provincial and territorial regulations. In recent years the call for increased and enhanced training for ECCE professionals has come from a number of different sources[26] and the following recommendations draw on a combination of these. One of the sources[27] has suggested that financial incentives, in addition to regulatory requirements, could be used both to encourage people entering the field to obtain a post-secondary ECCE credential, and to encourage centres to give preference to such people when hiring. For example, graduates of a two- or three-year college program in ECCE might be eligible for higher wages, and centres with a certain percentage of such graduates might be eligible for additional wage enhancement grants. In this way, regulatory and financial incentives could be integrated and coordinated, resulting in better-paid staff with higher levels of ECCE-specific training — two variables that predict quality.

The data in the *YBIC!* study also reinforce the importance of child care regulations on group size and adult:child ratios in child care centres. While these two factors have long been considered fundamental to child care quality, we note with concern that some jurisdictions have expressed interest in relaxing these regulations in order to make child care programs more "cost-effective." While increasing the number of children per teacher may result in more parental fees being paid and, hence, more revenue for the centres, such a move would also have a significant and negative impact on the quality of the child care program itself. Our findings and those of researchers in the United States[28] clearly show that higher numbers of children per adult are associated with poorer quality programs as well as less sensitive, and harsher, adult-child interactions.

Recommendations on Regulations

1. By the year 2007, all provincial and territorial governments must require that all child care staff at the rank of "teacher" (that is, a person responsible for a group of children) have completed the equivalent of a two-year, post-secondary, ECCE-specific education program.[29]

2. By the year 2010, all provincial and territorial governments should require that all child care staff at the rank of "teacher" have completed the equivalent of a four-year, post-secondary, ECCE-specific education program.[30]

3. All provincial and territorial governments must continue to regulate and enforce acceptable group sizes and adult:child ratios at levels consistent with those demonstrated by research as being associated with the provision of quality child care programs.[31]

Recommendations on Pre-Service Staff Education and Continuing Professional Development

4. Colleges, universities and other institutions providing post-secondary ECCE education, assisted by governments, must immediately address the current barriers of availability and accessibility faced by people wishing to obtain basic ECCE-specific credentials. Addressing these barriers must include:
   - the provision of both on-site and distance education programs for both full-time and part-time students;
   - the delivery of programs through a variety of different educational formats, such as correspondence courses, courses on the internet etc.;
   - the provision of supervised practicum experiences within reasonable distances from the students;
   - the provision of financial assistance and incentives to students in two-year post-secondary or equivalent ECCE education programs. This should include the provision of scholarships, bursaries and loans while in the educational program, and wage enhancements for graduates of such programs who are working in child care settings.

5. All provincial and territorial governments must immediately begin to provide financial assistance to centres to encourage them to hire graduates from two-year post-secondary ECCE programs, and to enable them to pay such staff higher wages.

6. Colleges, universities and other institutions providing post-secondary ECCE-specific education must immediately ensure that their programs include training for specific child populations, such as infants, children from diverse cultures, children who have special needs, and children of school age.

7. Colleges, universities and other institutions providing post-secondary ECCE-specific education must provide advanced training in program leadership and administration for people who are, or wish to become, centre supervisors or directors.

8. Colleges, universities and other educational institutions, governments, professional associations and child care programs must work together to ensure that in-service and continuing professional development opportunities are available and accessible in all jurisdictions for both staff and directors.

6.6b Recommendations on Financial Variables

A very clear and powerful message that emerges from both Study 1 and Study 2 of the *YBIC!* project — as well as from a raft of other American and Canadian studies — is that there is an inextricable link between financial resources and child care quality. Child care programs that are under continued financial stress for their very existence and viability — and in this category we include a very large percentage of Canadian child care centres[32] — provide lower quality child care programs. Conversely, centres that can provide

higher salaries, perhaps because they can reduce their expenditures on non-salary operating expenses like rent and utilities, are among the highest quality child care programs in Canada.

As documented in Study 1,[33] the economics of child care are precariously balanced on generally insufficient (or just barely sufficient) revenues from parent fees, which supply the bulk of centre revenue, to cover the personnel and non-personnel expenses of running a child care centre. The tenuous nature of child care economics has created a systemic fragility whereby even the more successful and financially viable centres are under constant and unremitting financial pressure. This widespread tenuousness and fragility are key ingredients in the recipe for lower quality child care.

The data from Study 1 indicate that in many jurisdictions the combined fees for two children — an infant and a preschooler, for example — would amount to about $1,000 a month.[34] As a result, centre-based care is unaffordable for many middle-class families who do not qualify for fee subsidy. Increasing fees as a way to increase centre revenues would further diminish access to child care centres and make it harder for them to keep their spaces full. Increasing fee subsidy rates does not appear to be an answer either. As found in Study 1, the increase in fee subsidy amount in Alberta was accompanied by a parallel increase in parent fees.[35] Providing tax relief to parents who pay for child care is sometimes suggested as a way of supporting child care services. However, since tax relief is not tied to the use of regulated care it encourages expenditures in the unregulated, and usually less expensive, sector and thereby fails to support the regulated system. We believe that the increased, stable funding that child care centres need can only result from on-going government grants made directly to centres. Therefore, we call on provincial, territorial and federal governments to pool their resources and to provide direct and continuing financial support to licensed child care programs.

Because of the clear and unequivocal relationship between staff wages and child care quality, the current situation of low wages for teaching staff must be addressed. We know from Study 1 that wages fuel staff turnover[36] and from the present study that they predict quality, a finding also reported by American researchers.[37] Low wages may also act as a disincentive for people to enter the occupation and/or to take specialized training. Fifty-one percent of directors who responded to the Study 1 survey reported that finding qualified permanent staff had been a problem in the previous year. Study 1 also revealed that the only jurisdictions in which there had been significant improvement in the purchasing power of teaching staff wages between 1991 and 1998 were British Columbia and Saskatchewan,[38] the two jurisdictions that implemented wage enhancement grants during that period. The provision of wage enhancement grants to centres would have a more direct and significant impact on child care quality than either increasing fee subsidy rates or providing tax credits or deductions to parents who use child care.

The data indicate very clearly that quality child care is associated with subsidized rent and/or utilities. The logic of this finding is clear and compelling: centres that can spend less on these operational costs can, and do, spend more on wages and other budget items that have a direct impact on program quality. We encourage different levels of government to explore various ways of effecting such cost savings and/or reductions. Governments could consider tax relief for building owners who provide child care centres with free or subsidized space and utilities, and/or implement policies that would encourage developers to include child care centres in new developments. Vancouver, for example, provides in its development process for developers to receive certain “bonuses,” such as additional parking spaces, in return for including child care centres in new buildings.

Recommendations on the Financial Aspects of Child Care

9. Governments must provide direct operating grants to child care centres in all jurisdictions so that the centres have a stable base of operating revenue.

10. Governments must provide centres in all jurisdictions with wage enhancement grants.

11. Governments must commit to funding the recommendations relating to improving the availability and accessibility to ECCE education and the payment of incentive grants to centres to encourage them to hire staff who are graduates of a two-year or equivalent post-secondary ECCE education program.

12. Governments should provide incentives for property owners to reduce or eliminate child care centres' costs of rent and utilities, and to facilitate the co-location and sharing of resources between licensed child care programs and schools, colleges, universities and other public and quasi-public institutions.

6.6c Recommendations on Administrative Variables

The data from this study indicate that centres that are used as student-teacher practicum sites are usually of higher quality than centres that are not so used. In a circular sense, better centres are probably more attractive to colleges, universities and other training institutions as practicum sites and therefore more often used for student placements. The presence of teachers-in-training can contribute to favourable adult:child ratios and the number of skilled adults on site. Serving as a practicum site may also encourage staff to be more reflective about what they are doing and more conscious about setting goals. In addition, being a practicum site provides centres with a source of consultation through the supervising college or university faculty. This consultation may function as a "quality support/improvement mechanism."

Child care centres should be encouraged and supported to serve as ECCE student-teacher practicum sites because: (1) such sites are needed to train the next generation of teaching staff, and (2) serving as a practicum site may encourage staff to engage in more planning and more reflective thinking, with a resultant higher level of child care quality. However, accepting practicum students has real costs for the centre in terms of staff time required for supervision, guidance and mentoring. Encouraging and supporting centres to be practicum sites might best be accomplished through an integrated approach of financial and regulatory incentives. Governments could financially recognize the staff costs incurred by centres and provide them with additional operating grants. Consideration might be given to the possibility of a higher status licence for centres that are practicum sites. This licence could be used by centres in promoting their centre to parents.

Recommendation on Administration

13. Governments should encourage and support child care centres to serve as ECCE student-teacher practicum sites through financial recognition of the additional staff costs incurred in the provision of supervision, guidance and mentoring for students.

We encourage all centres to do the kinds of things that are done in centres used as student-teacher practicum sites. For example, such centres have higher levels of formal discussion and articulation of program goals by the director and staff. We also suspect that staff in centres that are practicum sites engage in greater amounts of reflective thinking about their daily practice.

6.6d Recommendations on Attitudinal Variables

Our data clearly show the importance of staff attitudes for program quality in child care centres. One of the most critical attitudes among child care staff relates to their levels of job satisfaction. Previous child care research has also reported an association between a teacher's level of job satisfaction and the tone and type of interaction between the teacher and children.[39] We explored four aspects of job satisfaction — the individual's satisfaction with: (1) her relationship with her supervisor; (2) her relationship with her colleagues; (3) the centre as a work environment; and (4) her wages, benefits and promotion opportunities. Two of these variables — satisfaction with the relationship with colleagues and satisfaction with the centre as a work environment — predicted quality in preschool rooms. In exploring the individual's relationship with her colleagues we focused on the extent to which the person experiences the other teaching staff as friendly and supportive. Our exploration of the work environment looked at the extent to which the physical space and centre practices acknowledge and address the needs of teachers, both as individuals and in their professional role.

Job satisfaction is emerging as an important but perhaps inadequately acknowledged contributor to child care quality. As a first step, we believe it is essential to draw the attention of centre directors, boards of directors, centre owners, professional associations, and governments to the importance of job satisfaction. Providing high quality child care is physically and emotionally demanding work. Some of the associated stress can be alleviated in a collegial atmosphere in which teachers support each other by sharing ideas and resources or by being a sounding board for an individual trying to address a challenging situation with a child. Storage for personal belongings, a staff room or similar space where staff can have a break away from the children, scheduling that takes into account the teacher's personal needs, paid sick days, and opportunities for professional development send a signal that the individual is valued. A large multi-state American study found job satisfaction to be predicted by the extent to which staff needs are met — for example, the centre has a staff lounge or meeting area and there are provisions for professional growth.[40]

The director can help to influence the climate of a centre both as a work environment for teaching staff and as an educational and caring environment for children. While she cannot mandate collegial relationships among teaching staff, she can encourage them by her own behaviour — for example, by being supportive and by listening to her staff. The role of director requires knowledge and skills which are usually not part of basic ECCE training, such as staff supervision and development, and budget management. As noted earlier, teachers in centres where the director has received specific training in staff development and supervision as well as in general administration express more positive attitudes about their work environment.[41] However, we found in Study 1 that only a quarter of directors, 27.7%, had taken any courses related to administration. Yet, 68.2% of directors surveyed in Study 1 stated that such training should be a requirement for directors. We have therefore already recommended that all ECCE education programs provide advanced training in leadership and administration for people who are, or want to become, centre supervisors or directors.

We found in Study 1 that only 8.2% of teaching staff believe that their work is respected by the general public. In our opinion, this perception of not being valued contributes not only to turnover but also to the high proportion of teachers, 35.1%, who expressed dissatisfaction with their job by telling us that, knowing what they now know, they would not choose child care as a career again. Further to this issue of perceived lack of respect, we note, as we did in Study 1, the need for a public education campaign that ties the increasing evidence of the importance of the early years to a recognition of the value of the people who work in child care. Such a campaign might also increase public support for the use of government funds to invest in the care and education of young children and for the payment of adequate remuneration to child care staff.

Much of the life of child care is necessarily devoted to the pressing daily demands of providing high quality services to children and families, with little time or effort devoted to the needs of the centre as a work environment. We feel that it is vitally important that attitudinal factors be recognized and addressed in a wide range of approaches.

Recommendations on Job Satisfaction and the Work Environment

14. Governments, centre boards of directors and owners, and centre administrators must recognize the importance for quality programs of meeting the personal and professional needs of teaching staff and, as a first step, must allocate funds for this purpose.

15. Centre boards of directors and owners, perhaps in association with professional organizations and governments, must develop mechanisms to ensure that all regularly employed child care staff can participate in benefit plans, such as disability insurance, that would help to attract and retain employees.

16. Centre directors and staff must make the creation of a supportive work environment a high priority. This includes ensuring that staff know the formal and informal avenues for expressing concerns and addressing issues that affect their own and their collective well-being.

17. Governments and centre operators must encourage and enable centre directors to take specialized training in leadership and administration.

18. Recognizing that feelings of isolation and inadequacy are not uncommon in highly demanding service professions such as child care, ECCE educational programs must assist students to recognize the importance of their feelings, and impress upon them the need for personal reflection and interpersonal communication with other staff and the centre director.

19. Governments and professional associations must immediately undertake a public education campaign that links the importance of children's experience during their early years and the value of people who work in the child care field.

6.7 Closing Words: The Importance of Quality Child Care

As noted at the beginning of this chapter, high quality child care is an essential component of addressing broad societal goals, such as promoting the optimal development and school readiness of all children, reducing levels of child poverty, supporting economic productivity and labour force attachment, and promoting social cohesion. It is also important for supporting parents as nurturers and teachers of their young children. High quality child care programs complement and supplement warm, supportive homes as well as compensate for family situations that are unable to provide adequate levels of stimulation for the child.

6.7a The Optimal Development of All Children

The Canadian *National Longitudinal Survey of Children and Youth* (NLSCY),[42] which is following nearly 20,000 children across Canada, reports that children who had participated in some form of regular "early childhood program" as two- or three-year-olds were judged by their kindergarten teacher to have substantially better communication and conceptual skills than those who had not participated in such programs.[43] The association between early childhood program experience and better kindergarten performance held true regardless of the mother's educational level or family income, two factors known to influence school achievement.

The beneficial effects of participation in an early childhood group experience appear to carry over into the higher grades as well. The NLSCY also found that when they were in Grade One, children who had this type of experience did better in written work, reading and mathematics than children who had stayed at home until school entry.[44] A British study followed all children who were born in the United Kingdom in a specific week.[45] This resulted in a sample of 4,863 children who participated in a regular group experience prior to school entry, and a group of 3,363 who did not. At ages both 5 and 10, the children with a preschool experience performed significantly better on tests of cognitive functioning. At age 10, they had larger vocabularies and better ability to organize their thoughts. In doing their analysis, the researchers used statistical procedures to control for factors such as maternal education level and family income. When the French government compared grade retention across the whole country among children with and without preschool experience, it found that a higher proportion of children who had attended a child care centre passed the equivalent of Grade One and were promoted from Grade Six to Grade Seven.[46]

None of the studies reported above collected information about the quality of the early childhood experience. There is ample evidence that the potential of a child care setting to support and enhance children's development and school readiness is substantially increased when the program is of high quality. The *CQO* study followed 826 children from all socio-economic backgrounds from the time they participated in a child care centre program to the end of Grade Two. Even after taking into account the children's subsequent educational experience between child care and Grade Two, children who had attended higher quality centres had better language and mathematical skills, fewer problem behaviours and better peer relationships.[47] The researchers note that, "Higher quality care was associated with better developmental outcomes for children across the range of family circumstances."[48] Conversely, poor quality child care can put children's social, language and cognitive development at risk, regardless of family background. The *CQO* findings on the influence of child care quality on children's abilities in elementary school are consistent with those from studies done in Canada,[49] the United States,[50] and Sweden.[51]

6.7b Reducing Levels of Family and Child Poverty

Over the long term, poverty endangers a child's opportunity to develop into a healthy, self-reliant adult. Income limitations make it harder for parents to provide good nutrition, a safe place to live, and to stimulate children's development. The NLSCY found that 25% of preschool-aged children from families with an income of less than $30,000 had a developmental delay in language and cognitive skills, compared to 16% from families with higher incomes.[52] The Survey also reports that poor children do not do as well in school as non-poor children. For children between age 6 and 11, the rate of repeating a grade was three times higher for those whose families were in the lowest income 25% than for other children.[53] As noted by the National Council of Welfare, "The costs of health and social services to help poor children overcome the extra obstacles they face during childhood and later when they face the job market with lower levels of education and fewer job skills come out of the public purse."[54]

Opportunities for parental employment at adequate income levels are a critical part of any effective strategy to reduce child poverty. For lone parents, the majority of whom are women, such opportunities are essential. However, many two-parent families also rely on the earnings of mothers to enable them to provide life's necessities. In 1996, 10.5% of husband and wife families were poor. If the women in these families had not been working, the poverty rate for such families would have been 21.4%.[55] As noted in the following section, affordable, reliable child care is an essential ingredient for the workforce participation of mothers who have young children.

6.7c Supporting Economic Productivity and Labour Force Attachment

Quality child care can support the goals of economic productivity in three ways: first, by providing young children with a firm foundation of skills, competencies, attitudes and behaviours that will increase their likelihood of success in school and their future ability to contribute to a highly technical, knowledge-based economy; second, by supporting the productivity of the present workforce; and third, by encouraging and enabling labour force participation by people who are currently not engaged in paid work.

In 1997, women comprised 45.1% of the labour force. At that time, more than two-thirds of women (68.8%) with at least one child under age five were engaged in paid employment.[56] These statistics have two important implications. First, women are needed in the labour force to enable it to function at its current level and the country to maintain its productivity and economic well-being. Second, the availability of child care is a pre-requisite for employment for most women. There is clear evidence that the availability of child care influences women's decisions to participate and to remain in the paid workforce. Both Canadian and American studies have demonstrated that child care costs exert a significant negative effect on women's decisions both to enter the workforce and to remain in it.[57] However, the quality of the available child care is also a factor. Two studies on programs to assist social assistance recipients to acquire job skills and remain employed report that a mother's perception of the safety and quality of her child care arrangement predicted whether she would drop out of the program.[58] Quality and dependability also support the productivity of the present workforce. Higher rates of absenteeism, tardiness and/or having to leave work early have been reported among parents who have problems with their child care arrangement than among other parents in both Canada[59] and the United States.[60] A report issued by the U.S. Department of Health and Human Services suggests that parents "might be more effective employees if they do not have concerns about the environment in which their children spend a good part of each working day."[61]

6.7d Promoting Social Cohesion

Child care services can support communities by providing a welcoming and nurturing environment for *all* children, regardless of their level of ability or family background, and an opportunity for parents to meet and develop supportive relationships with other parents. For new immigrants and refugee families, culturally sensitive child care services can be a valuable family support during the often difficult transition period of adjustment to a new country. Child care can also assist all children to learn the tolerance and skills needed to live in our diverse society. Equality of opportunity is an important building block for social cohesion. When, as in Canada, a basic family and community support service such as child care is characterized by inequality of access and quality, an opportunity to promote social cohesion is lost.

6.7e The Need for Political Will

We believe that high quality child care programs are essential for the health and well-being of young children and the support of their families and their communities. We also believe that Canada has the ability to provide such programs. The data in this study have identified many of the pieces required to put together the high quality child care puzzle, and many of the pieces are within our reach. The challenge is whether Canada has the political will and clarity of vision to assemble these pieces into a coherent reality.

Notes

1 Canadian Child Day Care Federation/Canadian Day Care Advocacy Association 1992.
2 Beach, Bertrand and Cleveland 1998.
3 Doherty et al. 2000.
4 Goelman and Pence 1987; Lyon and Canning 1995; Mill and Romano-White 1999.
5 Council of Ministers of Education, Canada 1998.
6 Cleveland and Krashinsky 1998; Kent 1999.
7 National Forum on Health 1997, p. 7.
8 National Crime Prevention Council 1996, pp. 26-27.
9 National Council of Welfare 1999, p. 70.
10 Doherty et al. 2000, Chapter 13.
11 Helburn 1995.
12 Scarr, Eisenberg and Deater-Deckard 1994.
13 Helburn 1995, Executive Summary p. 4.
14 Whitebook, Howes and Phillips 1990.
15 Vandell and Wolfe 2000, p. 24.
16 Mill and Romano-White 1999.
17 Ibid., p. 171.
18 Whitebook, Howes and Phillips 1990.
19 Helburn 1995.
20 Whitebook, Howes and Phillips 1990; Scarr, Eisenberg and Deater-Deckard 1994.
21 Doherty et al. 2000, Chapter 13.
22 Mill and Romano-White 1999.
23 Jorde-Bloom and Sheerer 1992.
24 It should be noted that, while the government of Québec has indicated that it agrees with the objectives of the National Children's Agenda, it is sitting in on the discussions as an observer rather than as a participant.
25 Doherty et al. 2000, p. xiv.
26 For example, Beach, Bertrand and Cleveland 1998; Canadian Child Care Federation 1993; Goelman, in press.
27 Goelman, in press.
28 Howes 1983 and 1997; Howes and Rubenstein 1985; NICHD Early Child Care Research Network 1996; Phillips, Howes and Whitebook 1992b; Phillipsen at al. 1997.

29 The equivalent in Québec is currently a three-year course that starts after Grade 11 rather than after Grade 12 as in other jurisdictions.
30 The equivalent in Québec is currently a two-year college course after completion of Grade 11, followed by four years of university.
31 See Canadian Child Care Federation 1991, p. 9 for recommendations, based on the research literature, for adult:child ratio and group size by age group.
32 Over a third of the directors who participated in Study 1 — 38.0% — identified the financial viability of their centre as being one of the most pressing concerns they had faced in the previous 12 months.
33 Doherty et al. 2000, Table 10.10.
34 Ibid., Table 10.6.
35 Ibid., Chapter 10.
36 Ibid., Section 13.2.
37 Whitebook, Howes and Phillips 1990: Scarr, Eisenberg and Deater-Deckard 1994.
38 Doherty et al. 2000, Table 6.3.
39 Berk 1985; Jorde-Bloom and Sheerer 1992; Phillips, Howes and Whitebook 1991.
40 Whitebook, Howes and Phillips 1990.
41 Jorde-Bloom and Sheerer 1992.
42 The Survey is being conducted jointly by the Special Surveys Division of Statistics Canada, and the Applied Research Branch of Human Resources Development Canada.
43 Lipps and Yiptong-Avila 1999.
44 Ibid., p. 5.
45 Osborn and Milbank 1987, pp. 105-108.
46 Reported in Richardson and Marx 1989.
47 Peisner-Feinberg et al. 1999, pp. 7-8.
48 Ibid., p. 10.
49 Jacobs, Selig and White 1992.
50 Howes 1988 and 1990; Vandell, Henderson and Wilson 1988.
51 Broberg et al. 1997.
52 Ross, Scott and Kelly 1996, p. 42.
53 Ibid., p. 13.
54 National Council of Welfare 1999, p. 88.
55 Ibid., p. 12.
56 Cleveland and Krashinsky 1998, pp. 41-42.
57 For an extensive review, see Cleveland and Krashinsky 1998, pp. 42-49.
58 Meyers 1993; Ross and Paulsell 1998.
59 Duxbury and Higgins 1994; MacBride-King 1990.
60 Hofferth 1991.
61 Vandell and Wolfe 2000, p. 23.

Appendix A

Provincial/Territorial Requirements for Centre-Based Care for Children Under Age 6 in 1998, for the Jurisdictions Participating in Study 2

Jurisdiction	Variable	Requirements
British Columbia	Ratio and group size	*Ratio* / *Group size* 0-3 yrs: 1:4 / 12 30 months-6 yrs: 1:8 / 25
	ECCE education	*Under age 36 months:* Each group of 5-8 children must have one infant/toddler educator (basic 10-month ECCE program plus specialized infant/toddler training) and one early childhood educator (at least 10-months ECCE education from an approved institution). Each group of 9-12 children requires one infant/toddler educator, one early childhood educator and one assistant. *36 months to school age:* Each group requires one early childhood educator plus assistants.
	Monitoring	Annual visit, but this is not a statutory or policy requirement.

Jurisdiction	Variable	Requirements		
Alberta	Ratio and group size		*Ratio*	*Group size*
		0-12 months	1:3	6
		13-18 months	1:4	8
		19-35 months	1:6	12
		3-4.11 years	1:8	16
		5-6 years	1:10	20
	ECCE education	Directors are required to have a two-year ECCE diploma or equivalent. One in four staff must have a one-year ECCE credential or equivalent. All other teaching staff must take a 50-hour child care orientation course from a community college or equivalent.		
	Monitoring	Quarterly visits, but this is not a statutory or policy requirement.		
Saskatchewan	Ratio and group size		*Ratio*	*Group size*
		Infants	1:3	6
		Toddlers	1:5	10
		30 months-6 years	1:10	20
	ECCE education	Supervisors must have a one-year certificate or equivalent. Every other staff member must take a 130-hour child care orientation course or equivalent provided through a community college within one year of commencing work unless the person has a one-year ECCE certificate or equivalent.		
	Monitoring	A minimum of three visits annually. This is policy, not a statutory requirement.		
Ontario	Ratio and group size		*Ratio*	*Group size*
		Birth-17 months	3:10	10
		18 months-2.5 years	1:5	15
		2.5-4.11 years	1:8	16
		5-6 years	1:12	24
	ECCE education	Supervisors must have a two-year ECCE diploma or equivalent and at least two years' experience working in child care. One staff person with each group must have a two-year ECCE diploma or equivalent.		
	Monitoring	Annual visit. This is policy, not a statutory requirement.		

Jurisdiction	Variable	Requirements		
Québec	Ratio and group size		*Ratio*	*Group size*
		0-17 months	1:5	15
		18 months-3 years	1:8	30
		4-5 years	1:10	30
		6-12 years	1:15	30
	ECCE education	One-third of staff must have a college diploma or university degree in ECCE, or three years' experience plus a college attestation degree in ECCE (equivalent to one year), or an ECCE certificate. In 1999, these requirements were increased.		
	Monitoring	Permits (licences) are issued for two years. There is no policy or statutory specification for the frequency of visits.		
New Brunswick	Ratio and group size		*Ratio*	*Group size*
		Less than age 2	1:3	9
		2-2.11 years	1:5	10
		3-3.11 years	1:7	14
		4-4.11 years	1:10	20
		5-5.11 years	1:12	24
	ECCE education	No statutory or policy requirements for ECCE education for either directors or teaching staff.		
	Monitoring	One annual inspection is a statutory requirement, also conduct up to three unannounced visits per year.		
Yukon	Ratio and group size		*Ratio*	*Group size*
		0-18 months	1:4	8
		18 mths.-2.11 years	1:6	12
		3 years-5.11 years	1:8	16
	ECCE education	Fifty percent of staff must have completed at least a 60-hour child care orientation. In 1999, this requirement was increased.		
	Monitoring	One annual inspection is a statutory requirement; also do three-to-five unannounced visits each year.		

Source: Childcare Resource and Research Unit 2000, supplemented by telephone interviews.

Appendix B

Provincial/Territorial Recurring Grants to Centres in 1998, for the Jurisdictions Participating in Study 2

Jurisdiction	Grant name	Amount	Comments
British Columbia	Child Care Compensation Contribution Program	Based on a formula, so varies across centres.	To enhance the wages of child care staff who meet eligibility criteria, in both non-profit and commercial centres, and to assist with the additional costs associated with infant/toddler care.
Alberta	Operating grant	Per child per month: age 0-12 mths: $58 age 13-18 mths: $43 age 19-35 mths: $29 age 3-4.5 years: $22 age 4.5 plus: $17	Both non-profit and commercial centres were eligible; grant DISCONTINUED on April 1, 1999.

Jurisdiction	Grant name	Amount	Comments
Saskatchewan	Operating grant	Per child per month: infants: $40 toddlers: $30 preschoolers: $35 school-age: $20	Only non-profit centres are eligible for these grants.
	Teen infant centre grant	Per child per month: infants: $425 toddlers: $350	Only non-profit centres are eligible for these grants.
	Wage grant	$225/staff person/mth	Only non-profit centres are eligible for these grants.
Ontario	Operating grant (three components: a direct operating grant for centres, a child care wage enhancement grant for centres, and a provider wage enhancement grant for licensed family child care).	The amount received by a centre is a combination of the direct operating grant and the wage enhancement grant. Not all centres are eligible (see comments). In 1998, eligible non-profit centres received approximately $8,000 per staff and eligible commercial centres received approximately $3,000 per staff.	The amount granted to a centre depends on its size, auspice and length of time in operation. Commercial centres that were in operation prior to 1987 receive one-half of the amount of the direct operating grant component that would be given to a non-profit centre of the same size. Non-profit centres are eligible for the child care wage enhancement grant component only if they were in operation prior to 1991. In 1995, the wage enhancement grant was frozen. Eligible non-profit centres can only receive the grant for the number of staff employed at that time, even if their staff complement has increased. Commercial centres are not eligible for the wage enhancement component of the operating grant.

Jurisdiction	Grant name	Amount	Comments
Québec	Operating grant	Based on the number of children in the centre and their ages.	Available to non-profit centres with parent majority boards of directors and to centres whose licence is held by a school board. In September 1997, Québec instituted free full-day kindergarten for all 5-year-olds, and child care at a cost of $5 to parents for 4-year-olds. The $5 child care program is to be extended downward so that by 2000 it will apply to all children from birth through age 4.
	Group benefits grant	1.28% of payroll for extended health and dental insurance, 1.72% of the total insurable payroll for maternity leave.	Intended to assist centres to purchase group insurance; both non-profit and commercial centres are eligible for this grant.
New Brunswick	NONE	N/A	New Brunswick eliminated its operating grants to centres in 1995.
Yukon	Operating grant	Based on a formula, so varies across centres.	Only available to centres licensed before September 1995. Operating grants only become available to a new centre if a centre that was getting a grant closes. Both non-profit and commercial centres are eligible for these grants.

Sources: Childcare Resource and Research Unit 2000; Betsy Heately, Ontario Child Care Branch.

Appendix C

Centre Questionnaire

General Instructions:

We are interested in learning about your centre — the children enrolled, the centre's financial organization, its staffing, wages and working conditions, and changes to centre practices and policies within the past three years. This survey is to be completed ***only*** by the centre director, the owner-operator, or the senior person in the role of director in a centre that is part of an organization with several centres.

Please provide an answer to ***each*** question, unless specifically instructed to skip a question. Providing an answer to each question may require filling in the box beside the option "don't know" or writing in N/A (for "not applicable") on a table.

Are you in a situation where there are several centres under a single administrator or director?

❑ No
❑ Yes

If yes, please complete this questionnaire for only **ONE** of the centres. In this situation, the questionnaire may be completed by the person responsible for all centres in the organization and/or the senior person at the particular centre in question.

If you have any questions, please feel free to contact Gillian Doherty toll free between 9am and 6pm (Ontario time) at 1-888-664-6026.

Section A: Children at your centre

A1 How many children are currently enrolled in your centre in each of the age groups below? (Please write a number or "0" in each space. **NOTE** : Part-time refers to situations where children only attend part of the day or part of the week).

Age group	Number of full-time	Number of part-time
0 to 17 months		
18 months to 2.11 years		
3 years to 4.11 years		
5 years or older		

A2 Are all your licensed spaces currently filled? (For the purpose of this question, it doesn't matter if the spaces are full- or part-time).

- ❑ No
- ❑ Yes (Skip to A5)

A3 Please indicate the number of currently unused F.T.E. (full-time equivalent) spaces beside each age group. (Write a number, or "0", or N/A if your centre doesn't serve the age group in question, beside ***each*** age group).

Age group	Number of unused F.T.E. spaces
0 to 17 months	
18 months to 2.11 years	
3 years to 4.11 years	
5 years or older	

A4 What is/are the main reason(s) for these unused spaces? (Please fill in the box beside ***each*** reason you believe has contributed to your empty spaces).

- ❑ changes in provincial regulations or legislation
- ❑ fees have increased beyond what some families can afford
- ❑ subsidy levels have not kept pace with fees
- ❑ eligible parents cannot obtain subsidies
- ❑ more parents looking after their children at home
- ❑ there is less demand for full-time spaces
- ❑ there are more centres and thus more competition for children
- ❑ we deliberately have not filled some spaces
- ❑ other reason, please specify _____
- ❑ don't know

A5 How many of the currently enrolled children have been at your centre for one year or more? (Please write a number, or "0", or N/A if your centre does not serve the age group in question, beside each age group):

_____ children under age three

_____ children between age three and five

A6 Approximately how many children attending your centre speak neither English nor French at home?

Approximately _____

A7 How many children with special needs, if any, are currently attending your centre? **(NOTE**: For the purpose of this question, the term "special needs" refers to children with a physical or intellectual disability identified by a professional such as a physician or a speech therapist. Include children diagnosed as medically fragile as well as children with significant emotional difficulties).

_____ full-time

_____ part-time (that is, part day or part week)

A8 Has your centre been unable to accept the application of any child(ren) with special needs within the past **three years**?

- ❑ No
- ❑ Yes. If yes, please indicate each reason that applies:
  - ❑ the building would have required structural modifications
  - ❑ insufficient funds for necessary equipment
  - ❑ insufficient funds to provide for the required additional staffing
  - ❑ staff did not feel adequately trained to care for the child
  - ❑ staff felt having the child in the centre would be too stressful
  - ❑ staff felt the child would affect the other children adversely
  - ❑ we could not access required external consultants (e.g. physiotherapist, resource teacher, early intervention consultant)
  - ❑ the child had complex health needs that we could not address (e.g. catheterization, tube feeding)
  - ❑ the child had a severe developmental handicap or autism
  - ❑ the child's behaviour was too aggressive
  - ❑ we already had our maximum number of children with special needs
  - ❑ other, please specify _____

A9 Within the ***past three years***, has your centre provided in-service training, brought in a consultant to provide training, or paid a teacher to take a course or workshop in any of the following topics? Please indicate the appropriate response(s).

- ❑ anti-bias curriculum or cultural diversity in child care settings
- ❑ caring for children with physical disabilities or those who are medically fragile
- ❑ use of alternate communication systems, e.g. signing
- ❑ programming for children with developmental delays
- ❑ responding to challenging behaviour
- ❑ none of the above

Section B: Financial organization

B1 What is the monthly fee for children at your centre whose parents pay the ***full*** fee? (Please write in the fee amount or N/A for "not applicable", in each of the spaces in the following table. **NOTE:** part-time refers to situations where children only attend part of the day or part of the week).

Age group	Full-time	Part-time
0 to 17 months		
18 months to 3 years		
over 3 years to 5 years		
school-age children		

B2 How many children in your centre have fees paid fully or in part through government fee subsidy?

_____ children

B3 Does your centre offer reduced fees for any children that it serves?

- ❑ No (Skip to question B5)
- ❑ Yes

B4 Which children are offered reduced fees at your centre?

- ❑ children of centre employees
- ❑ children with siblings at the centre
- ❑ other, please specify _____

B5 Approximately what percentage of the centre's annual ***cash*** revenue comes from each of the following sources? (An estimate is fine. Do not include in-kind donations, the following question asks about these. **NOTE**: some of the government grants listed below may not be available in your province or territory).

_____ % parent fees

_____ % government subsidies for low-income parents

_____ % government grant to increase staff wages

_____ % government grant for training or for hiring

_____ % government operating/equipment grant

_____ % corporate sponsors

_____ % own fundraising

_____ % other, please specify _____

B6 What type of regular ***in-kind*** donations does your centre receive? (Please indicate each type available to you).

- ❑ subsidized rent or rent-free space
- ❑ free or subsidized heat, light, water, and/or gas
- ❑ free or subsidized janitorial/maintenance services
- ❑ free or subsidized administrative services, e.g. bookkeeping
- ❑ toys or equipment
- ❑ supplies
- ❑ food
- ❑ consultation or advice from university or college faculty
- ❑ other, please specify _____
- ❑ none

B7 Have there been any significant increases or decreases in the cash revenue and/or the in-kind donations received by your centre in the past three years?

- ❑ No (Skip to B9)
- ❑ Yes

B8 What type of changes have occurred in your centre's annual cash revenue or in-kind donations in the past three years? (Please fill in the relevant box beside each cash or in-kind item).

Cash revenue/in-kind resource	Increased	Decreased	Eliminated
Parent fees	❑	❑	N/A
Provincial/territorial government grants	❑	❑	❑
Fee subsidy per child	❑	❑	❑
Own fund raising	❑	❑	❑
In-kind donations	❑	❑	❑
Other, please specify	❑	❑	❑

B9 Please indicate approximately what percentage of your centre's current annual budget goes towards the following items. **(NOTE:** we do not expect your responses to add up to 100% since not all possible types of expenditures are included).

_____ % staff wages. Include **yourself** and all **teaching** and **non-teaching** staff

_____ % staff benefits. Include **yourself** and all **teaching** and **non-teaching** staff

_____ % rent or mortgage payments

_____ % utilities (heat, light, water, gas)

Section C: Centre organization

C1 What are the regular hours of operation at your centre? (Please indicate the hours of operation for each day that the centre is open, e.g. 7.00 am to 7.00 pm. Write in "closed" beside days that the centre does not operate).

Day of the week	Hours centre open
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

C2 If you close by 7.00 pm and do not operate on the weekend, please indicate the relevant reason(s) below or write in a reason. If you ***do*** operate in the evening or on weekends, skip to C3.

- ❑ there has been little or no demand from parents for service beyond 7.00 pm
- ❑ we cannot afford to operate in the evening and/or on weekends because of the increased cost of staffing
- ❑ we operate in shared space and have to be out of the space we use before 7.00 pm and/or on weekends
- ❑ other reason, please specify _____

C3 In the following table, indicate the number of staff by position who currently work full-time (30 or more hours a week) and the number who work part-time (less than 30 hours a week). Please write a number or "0" in each box.

Position	Full-time (30 hrs or more a wk)	Part-time (less than 30 hrs a wk)
Assistant teacher - someone working under the direction of a teacher, supervisor, or the centre director		
Teacher - someone with primary responsibility for a group of children. This person may supervise an assistant teacher working in the same room		
Supervisor - a person who has supervisory responsibility for teachers and may also have primary responsibility for a group of children		

C4 How many of your teaching staff currently have a time-limited contract rather than a permanent position? (Please write a number or "0" beside each of the three positions. Include **both full-time** (30 hours or more a week) and **part-time** teaching staff).

_____ assistant teachers

_____ teachers

_____ supervisors

C5 Does your centre regularly use parents or other types of volunteers in direct work with the children, e.g. assisting in the daily program? (Please **exclude** Early Childhood Education (ECE) or child care practicum students on placement. For the purpose of this survey, "regularly" means at least once a week).

- ❑ No
- ❑ Yes

C6 As a group, approximately how many hours of service a month do your volunteers provide in direct work with children?

_____ hours per month

C7 Has your centre had any Early Childhood Education (ECE) or child care practicum students on placement in the past year?

- ❑ No
- ❑ Yes, how many? _____

C8 Including **both full-time and part-time** teaching staff, please indicate the number who are:

_____ male

_____ female

C9 How many of your teaching staff, if any, are Aboriginal, First Nations, métis or a member of a visible minority group? (Please include both **full-time** and **part-time** staff and write in a number or "0" beside each choice).

_____ Aboriginal, First Nations or métis

_____ a member of a visible minority group

C10 How many adults with disabilities, if any, are involved in your program, either as paid staff or trained volunteers?

_____

C11 How many teachers have at least a two-year post-secondary diploma or certificate in early childhood education? (Please include both **full-time** and **part-time** staff).

_____

C12 In addition to providing child care for children under age six, does your centre operate any of these other services? (Please indicate all that apply).

- ❑ family day care
- ❑ before and/or after school program
- ❑ kindergarten
- ❑ Head Start or early intervention program
- ❑ counselling or training for teen-age parents whose children are enrolled at the centre
- ❑ ESL (English as a second language) program for children who are enrolled at the centre
- ❑ drop-in program
- ❑ specialized consultation to other centres, e.g. on inclusion
- ❑ none of the above

C13 Is your centre:

- ❑ Municipal, that is operated directly by a municipality
- ❑ Commercial, that is, a private business. If yes, is it:
  - ❑ a proprietorship
  - ❑ a partnership
  - ❑ a corporation
- ❑ Non-profit. If yes, is it:
  - ❑ independent
  - ❑ parent cooperative

  Sponsored by:
  - ❑ a religious organization
  - ❑ a university or college
  - ❑ a school
  - ❑ a workplace, e.g. hospital or business
  - ❑ a community organization, e.g. the YM\YWCA
  - ❑ a government agency

Section D: Changes in policies and practices

In this section we are interested in significant changes in policies and/or practices that have occurred at your centre during the ***past three years*** and the main reasons for these changes.

D1 Please indicate in the Yes or No column whether any of the following changes have occurred in ***your centre's organization.*** (If any of the changes have occurred, please write in the nature of the change and the main reason for it).

Type of change	Yes or No	Nature of the change	Main reason for the change
Change in auspice, e.g. from non-profit to commercial	❑ Yes ❑ No		
Shift to or from operating in more than one building	❑ Yes ❑ No		
Change in the age group(s) served	❑ Yes ❑ No		
Change in the distribution of ages served, e.g. now serving fewer infants	❑ Yes ❑ No		
Change in program components, e.g. addition of a kindergarten or Head Start program	❑ Yes ❑ No		

D2 Please indicate in the Yes or No column whether any of the following changes have occurred in ***your centre's staffing patterns*** in the ***past three years.*** If any of the changes identified have occurred, please write in whether there has been an increase or a decrease and the main reason for each change.

Type of change	Yes or No	Increase or decrease	Main reason for the change
Use of part-time teaching staff	❑ Yes ❑ No		
Use of teaching staff who are on time-limited contracts	❑ Yes ❑ No		
Use of your centre as a placement for college or university ECE students	❑ Yes ❑ No		
Use of volunteers (do not include ECE students on placement)	❑ Yes ❑ No		

D3 Please indicate in the Yes or No column whether any of the following changes in ***benefits*** have occurred in your centre in the ***past three years***. If any of the changes have occurred, please write in the specific nature of the change, e.g. part-time employees no longer get a paid break, and the main reason for it.

Type of change	Yes or No	Nature of the change	Main reason for the change
Specific benefits have been added or increased	❑ Yes ❑ No		
Specific benefits have been decreased or lost	❑ Yes ❑ No		
Specific benefits have been restricted to certain types of employees, e.g. full-time staff	❑ Yes ❑ No		

D4 Please indicate in the Yes or No column whether any of the following changes to ***the program*** you provide have occurred ***in the past three years.*** If any of the changes have occurred, please write in the nature of the change and the main reason for it.

Type of change	Yes or No	Nature of the change	Main reason for the change
Change in activities or program, e.g. we go on fewer field trips	❑ Yes ❑ No		
Requesting or requiring parents to provide things that were previously provided by the centre, e.g. diapers	❑ Yes ❑ No		

D5 Have there been any other significant changes in policies or practices at your centre in the **past three years?**

❑ No

❑ Yes. If yes, please specify _____

Section E: Salaries

The questions in the tables on the following pages request information about salary levels. Different provinces and territories use different terminology to distinguish the different positions that may be held by a person working in a child care centre. In order to get some consistency in usage for the purposes of this survey, please read and use the following definitions:

ASSISTANT TEACHER: As used in this section refers to persons working with children under the direction of a teacher, supervisor or the centre director.

TEACHER OR SUPERVISOR: As used in this section refers to persons who have primary responsibility for a group of children. This person may also have staff supervisory duties.

TEACHER-DIRECTOR OR HEAD SUPERVISOR: Refers to persons with both teaching and administrative duties.

ADMINISTRATIVE-DIRECTOR: Refers to persons who have administrative duties ***only***.

Please base your answers to the questions in the following table, E1 to E8, on the current salaries of your **FULL-TIME** staff only, that is, people who work 30 hours or more a week. The next page deals with part-time staff. Please **INCLUDE** wage supplement or similar government grants applied directly to staff salaries so that your answers reflect the staff member's gross earnings before deductions

Assistant teacher - persons working with children under the direction of a teacher, supervisor or the centre director
Teacher or supervisor - persons with primary responsibility for a group of children. This person may also have staff supervisory and/or administrative duties
Teacher-Director or Head Supervisor - persons with both teaching and administrative duties
Administrative director - persons who have administrative duties only

	ASSISTANT TEACHER	TEACHER OR SUPERVISOR	TEACHER-DIRECTOR OR HEAD SUPERVISOR	ADMINISTRATIVE DIRECTOR
Mark N/A if no **FULL-TIME** staff in this category	❑ N/A	❑ N/A	❑ N/A	❑ N/A
E 1 - Do all **FULL-TIME** staff within each position receive the same starting (not probationary) salary, regardless of education and experience?	❑ No Starting salary ranges from: $ _____ per hour $ _____ per hour ❑ Yes Starting salary is: $ _____ per hour	❑ No Starting salary ranges from: $ _____ per hour $ _____ per hour ❑ Yes Starting salary is: $ _____ per hour	❑ No Starting salary ranges from: $ _____ per hour $ _____ per hour ❑ Yes Starting salary is: $ _____ per hour	❑ No Starting salary ranges from: $ _____ per hour $ _____ per hour ❑ Yes Starting salary is: $ _____ per hour
E 2 - Currently, what **gross** hourly wage does the **highest** paid full-time person working in each position earn?	$ _____ per hour	$ _____ per hour	$ _____ per hour	$ _____ per hour
E3 - Currently what **gross** hourly wage does the **lowest** paid full-time person working in each position earn?	$ _____ per hour	$ _____ per hour	$ _____ per hour	$ _____ per hour
E4 - Are any staff in a full-time position in your centre represented by a union? If yes, what is the union's name?	❑ No ❑ Yes _____ _____	❑ No ❑ Yes _____ _____	❑ No ❑ Yes _____ _____	❑ No ❑ Yes _____ _____

	ASSISTANT TEACHER	TEACHER OR SUPERVISOR	TEACHER-DIRECTOR OR HEAD SUPERVISOR	ADMINISTRATIVE DIRECTOR
Mark N/A if no **FULL-TIME** staff in this category	❑ N/A	❑ N/A	❑ N/A	❑ N/A
E 5 - Do all **PART-TIME** staff within each position receive the same starting (not probationary) salary, regardless of education and experience?	❑ No Starting salary ranges from: $ _____ per hour $ _____ per hour ❑ Yes Starting salary is: $ _____ per hour	❑ No Starting salary ranges from: $ _____ per hour $ _____ per hour ❑ Yes Starting salary is: $ _____ per hour	❑ No Starting salary ranges from: $ _____ per hour $ _____ per hour ❑ Yes Starting salary is: $ _____ per hour	❑ No Starting salary ranges from: $ _____ per hour $ _____ per hour ❑ Yes Starting salary is: $ _____ per hour
E6 - Currently, what **gross** hourly wage does the **highest** paid part-time person working in each position earn?	$ _____ per hour	$ _____ per hour	$ _____ per hour	$ _____ per hour
E7 - Currently, what **gross** hourly wage does the **lowest** paid part-time person working in each position earn?	$ _____ per hour	$ _____ per hour	$ _____ per hour	$ _____ per hour
E8 - Are any staff in a part-time position in your centre represented by a union? If yes, what is the union's name?	❑ No ❑ Yes _____ _____	❑ No ❑ Yes _____ _____	❑ No ❑ Yes _____ _____	❑ No ❑ Yes _____ _____

Section F: Staff turnover

F1 How many current vacancies do you have in each category of staff?

_____ assistant teachers (persons working with children under the direction of a teacher, supervisor or the centre director)

_____ teachers (persons with primary responsibility for a group of children. This person may supervise an assistant teacher working in the same room)

_____ supervisors (persons who have supervisory responsibility for teachers and may also have primary responsibility for a group of children)

IF NONE OF YOUR TEACHING STAFF HAS LEFT THE CENTRE IN THE PAST 12 MONTHS, FILL IN THIS BOX ❑ AND SKIP TO SECTION G.

If any teaching staff have left over the past 12 months, please complete the table on the following page.

Assistant teacher - persons working with children under the direction of a teacher, supervisor or the centre director.
Teacher - persons with primary responsibility for a group of children. This person may also have staff supervisory and/or administrative duties.
Supervisor - persons with both teaching and supervisory dutie

	ASSISTANT TEACHER	TEACHER	SUPERVISOR
F2 How many staff in each category left the centre in the past 12 months? Please include staff who left for temporary leave-of-absence as well as those who were dismissed or left the centre's employ voluntarily	______ assistant teachers	______ assistant teachers	______ assistant teachers
F3 Of those who have left in the past 12 months, how many in each category left for the reasons given? Please write in the number of people beside each applicable reason.	______ were fired or dismissed for poor performance ______ were laid off due to low enrollment ______ were laid off due to budget cutbacks ______ contract ended ______ were laid off for other reasons ______ quit the centre ______ took a leave of absence ______ don't know the reason ______ Other (specify) ______________________	______ were fired or dismissed for poor performance ______ were laid off due to low enrollment ______ were laid off due to budget cutbacks ______ contract ended ______ were laid off for other reasons ______ quit the centre ______ took a leave of absence ______ don't know the reason ______ Other (specify) ______________________	______ were fired or dismissed for poor performance ______ were laid off due to low enrollment ______ were laid off due to budget cutbacks ______ contract ended ______ were laid off for other reasons ______ quit the centre ______ took a leave of absence ______ don't know the reason ______ Other (specify) ______________________

IF NONE OF YOUR STAFF LEFT THE CENTRE VOLUNTARILY OR TOOK A LEAVE OF ABSENCE, SKIP TO SECTION G

	ASSISTANT TEACHER	TEACHER	SUPERVISOR
F4 - What were the three main reasons that staff left the centre voluntarily. Please indicate no more than THREE reasons in each column.	❑ Dissatisfied with pay ❑ Dissatisfied with benefits ❑ Dissatisfied with working conditions ❑ Dissatisfied with centre policies or procedures ❑ Counseled to leave ❑ Conflict with co-workers ❑ Conflict with parents ❑ Found job too stressful ❑ Ill health ❑ Maternity or parental leave ❑ Family move ❑ Problems with own child care arrangement ❑ Other personal reason ❑ Accepted another job ❑ Returned to school ❑ Other (Specify __________) ❑ Don't know	❑ Dissatisfied with pay ❑ Dissatisfied with benefits ❑ Dissatisfied with working conditions ❑ Dissatisfied with centre policies or procedures ❑ Counseled to leave ❑ Conflict with co-workers ❑ Conflict with parents ❑ Found job too stressful ❑ Ill health ❑ Maternity or parental leave ❑ Family move ❑ Problems with own child care arrangement ❑ Other personal reason ❑ Accepted another job ❑ Returned to school ❑ Other (Specify __________) ❑ Don't know	❑ Dissatisfied with pay ❑ Dissatisfied with benefits ❑ Dissatisfied with working conditions ❑ Dissatisfied with centre policies or procedures ❑ Counseled to leave ❑ Conflict with co-workers ❑ Conflict with parents ❑ Found job too stressful ❑ Ill health ❑ Maternity or parental leave ❑ Family move ❑ Problems with own child care arrangement ❑ Other personal reason ❑ Accepted another job ❑ Returned to school ❑ Other (Specify __________) ❑ Don't know
F5 - If one or more of your teaching staff left to accept an other job, what type of job was it? Please indicate the number of people taking each type of job. Skip to Section G if this question is not applicable.	______ Job in another child care centre ______ Job in family child care provision ______ Job elsewhere in the child care field, e.g. family resource centre ______ Job in another situation related to child and/or family services ______ Job unrelated to child and/or family services ______ Don't know	______ Job in another child care centre ______ Job in family child care provision ______ Job elsewhere in the child care field, e.g. family resource centre ______ Job in another situation related to child and/or family services ______ Job unrelated to child and/or family services ______ Don't know	______ Job in another child care centre ______ Job in family child care provision ______ Job elsewhere in the child care field, e.g. family resource centre ______ Job in another situation related to child and/or family services ______ Job unrelated to child and/or family services ______ Don't know

Section G: Benefits and working conditions

Assistant teacher - person working with children under the direction of a teacher, supervisor or the centre director.
Teacher or supervisor - person who has primary responsibility for a group of children. This person may also have staff supervisory and/or administrative duties.
Teacher-director or head supervisor - person with both teaching and administrative duties.
Administrative-director - person who has administrative duties only.

Full-time refers to persons who work 30 hours or more a week

NOTE: "Compensation" refers to either payment or time off in lieu

	ASSISTANT TEACHER		TEACHER OR SUPERVISOR		TEACHER-DIRECTOR OR HEAD SUPERVISOR		ADMINISTRATIVE DIRECTOR	
G1 - Which of the following are CURRENTLY paid to full- and part-time staff? If you have no staff in that position, check N/A at the top of the column.	FULL-TIME ❑ N/A	PART-TIME ❑ N/A	FULL-TIME ❑ N/A	PART-TIME ❑ N/A	FULL-TIME ❑ N/A	PART-TIME ❑ N/A	FULL-TIME ❑ N/A	PART-TIME ❑ N/A
Paid coffee breaks	❑	❑	❑	❑	❑	❑	❑	❑
Paid lunch time	❑	❑	❑	❑	❑	❑	❑	❑
Paid preparation/planning time	❑	❑	❑	❑	❑	❑	❑	❑
Compensation for attendance at Board of Directors meetings	❑	❑	❑	❑	❑	❑	❑	❑
Compensation for attendance at staff meetings after working hours	❑	❑	❑	❑	❑	❑	❑	❑
Compensation for attendance at parent meetings after working hours	❑	❑	❑	❑	❑	❑	❑	❑
Compensation for attendance at on-site in-service training	❑	❑	❑	❑	❑	❑	❑	❑
Compensation for overtime child care provision	❑	❑	❑	❑	❑	❑	❑	❑
Paid release time to attend off-site training and workshops	❑	❑	❑	❑	❑	❑	❑	❑
Financial assistance to cover workshops, conferences, etc.	❑	❑	❑	❑	❑	❑	❑	❑
Payment of child care association memberships	❑	❑	❑	❑	❑	❑	❑	❑
Yearly cost of living increase in wages	❑	❑	❑	❑	❑	❑	❑	❑
Yearly wage increase	❑	❑	❑	❑	❑	❑	❑	❑
Periodic merit increases in wages	❑	❑	❑	❑	❑	❑	❑	❑
Subsidization of child care fees for parent employees	❑	❑	❑	❑	❑	❑	❑	❑
Unpaid, job-protected maternity/ parental leave	❑	❑	❑	❑	❑	❑	❑	❑
Employer top-up of U.I. maternity/ parental leave	❑	❑	❑	❑	❑	❑	❑	❑
Number of paid sick days per year (Write 0 if none)	___days	___days	___days	___days	___days	___days	___days	___days
Number of paid personal leave days per year (Write 0 if none)	___days	___days	___days	___days	___days	___days	___days	___days
Number of paid vacation days per year (Write 0 if none)	___days	___days	___days	___days	___days	___days	___days	___days
Maximum days of accumulated carry-over sick leave	___days	___days	___days	___days	___days	___days	___days	___days
Maximum days of accumulated carry-over vacation leave	___days	___days	___days	___days	___days	___days	___days	___days

G2. Please indicate if the premiums for each benefit listed below are: a) fully paid for by the centre, b) partly paid for by the centre, c) not paid for by the centre. Please identify the premium as paid for by the centre if the funds come from the government wage enhancement grant funds.

Assistant teacher - person working with children under the direction of a teacher, supervisor or the centre director.
Teacher or supervisor - person who has primary responsibility for a group of children. This person may also have staff supervisory and/or administrative duties
Teacher-director or head supervisor - person with both teaching and administrative duties.
Administrative-director - person who has administrative duties only.

	ASSISTANT TEACHER		TEACHER OR SUPERVISOR		TEACHER-DIRECTOR OR HEAD SUPERVISOR		ADMINISTRATIVE DIRECTOR	
Mark N/A if no staff in that position	FULL-TIME ❑ N/A	PART-TIME ❑ N/A	FULL-TIME ❑ N/A	PART-TIME ❑ N/A	FULL-TIME ❑ N/A	PART-TIME ❑ N/A	FULL-TIME ❑ N/A	PART-TIME ❑ N/A
Dental coverage	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not
Extended Health Care	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not
Employee assistance plan (e.g. counseling for personal problems)	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not
Short-term Disability (payment for illness, accident for first 17 weeks)	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not
Long-term Disability (payment for illness, accident after 17 weeks)	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not
Life Insurance	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not
Retirement/Pension Plan	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not	❑ Fully ❑ Partly ❑ Not

G3 Please indicate **ALL** of the following that are available at your centre.

- ❑ written job descriptions
- ❑ written job contracts
- ❑ a written salary schedule
- ❑ a staff manual outlining staff policies
- ❑ regular written staff job performance appraisal
- ❑ a formal grievance procedure for staff
- ❑ a room which is set aside for staff use only
- ❑ a separate staff washroom
- ❑ a resource room or staff library (include any collection of child care journals and/or books available for staff use)
- ❑ none of the above

Section H: Issues and opinions

H1 - Over the past 12 months, how significant have the following issues been in your centre? Please fill in one box for each issue	Not a problem	A minor problem	A major problem
Finding qualified permanent teaching staff	❑	❑	❑
Affording qualified permanent teaching staff	❑	❑	❑
Keeping qualified permanent teaching staff	❑	❑	❑
Finding qualified substitute teaching staff	❑	❑	❑
Providing financial assistance or paid time off to assist staff to undertake professional development	❑	❑	❑

H2 What do you consider to have been the THREE most pressing problems facing your centre this past year?

1. _____ (most pressing)
2. _____ (second most pressing)
3. _____ (third most pressing)

Thank you very much for completing this questionnaire. We realize that your participation involved both time and effort. We would appreciate any additional comments that you may wish to make. (Please put your comments on another sheet of paper).

Appendix D

Staff Questionnaire

General instructions

This questionnaire is for staff members who are working directly with children under age six. It includes questions to help us develop a profile of child care teachers across the country — your experiences, education, the multiple roles you have, and your feelings about your centre and the child care field in general.

Many of the questions simply require you to choose the relevant response from a list of options. Therefore, the questionnaire is not as long as it appears! Trial runs indicate that it takes approximately 40 minutes to complete the whole questionnaire. Please provide an answer to ***each*** question, unless specifically instructed to skip a question or questions. Providing an answer to each question may require filling in the box beside the option "don't know."

All the information that you provide will be treated confidentially.

If you have any questions, feel free to contact Gillian Doherty between 9 am and 6 pm (Ontario time) toll free at 1-888-664-6026.

Section A: Child care experience

A1 Do you spend most of your day with a specific classroom or group of children in your centre?

- ❑ No (Skip to A3)
- ❑ Yes

A2 What are the ages of the children in this group? (Please indicate all options that apply).

- ❑ 0 - 17 months old
- ❑ 18 - 35 months old
- ❑ 3, 4 and 5 year olds

A3 Are you primarily working in any of the following programs within your centre:

- ❑ a program for children with special needs?
- ❑ a kindergarten program?
- ❑ a Head Start or early intervention program?
- ❑ an ESL (English as a second language) program?
- ❑ a program specifically for the children of teen mothers?
- ❑ none of the above?

A4 Do you have supervisory responsibility for Early Childhood Education (ECE) students doing a practicum placement in your centre?

- ❑ No (Skip to A6)
- ❑ Yes

A5 Approximately how much time a week do you spend supervising practicum students when they are in your centre?

_____ hours a week

A6 In ***addition*** to caring for children, approximately what percentage of your time is spent in each of the following activities in ***a typical work week***? (A rough estimate is alright. We recognize that the combined time spent on these activities may not be 100%).

_____ % planning and preparation (e.g. assembling materials for an activity)

_____ % interaction with parents (e.g. conversation, phone call)

_____ % meal and/or snack preparation and clean-up

_____ % staff supervision (e.g. staff allocation, performance appraisals)

_____ % meetings with people other than parents

_____ % supervising practicum students (students on placement)

_____ % administration (e.g. ordering supplies)

_____ % maintenance (e.g. cleaning, repairing)

_____ % other, please specify _____

A7. In a ***typical work week:***

a) how many hours are you regularly scheduled to work?

_____ hours per week

b) how many hours of unpaid overtime, if any, do you work ***at your centre****?*
(e.g. attending staff or parent meetings, preparing activity materials)

_____ hours per week

c) how many hours of unpaid overtime, if any, do you work at ***another location***? (e.g. preparing work-related materials at home)

.

_____ hours per week

A8 How often does your centre have scheduled meetings of all the teaching staff?

- ❑ never
- ❑ less than once a month
- ❑ once a month
- ❑ twice a month
- ❑ three times a month
- ❑ four times a month
- ❑ more than four times a month

A9 Is your attendance at staff meetings:

- ❑ during your regular paid scheduled work day?
- ❑ paid overtime?
- ❑ unpaid overtime?

NOTE: Different provinces and territories use different terms to describe the position a person may have in a child care centre. In order to obtain some consistency in the way people respond, please read the following definitions carefully. You will need to use them to answer the next two questions.

ASSISTANT TEACHER refers to a person who works with children under the direction of another teacher, a supervisor, or the centre director.

TEACHER refers to a person who has primary responsibility for a group of children. This person also may have supervisory responsibilities for assistant teachers.

SUPERVISOR refers to a person who has primary responsibility for a group of children and also has supervisory responsibilities for teachers.

A10 According to the above definitions, what was your ***starting*** position at this centre?

- ❑ Assistant Teacher
- ❑ Teacher
- ❑ Supervisor

A11 According to the above definitions, which best describes your ***current*** job?

- ❑ Assistant Teacher
- ❑ Teacher
- ❑ Supervisor

A12 In years and months, how long have you worked at this centre? (Include leave of absence, e.g. maternity leave).

_____ years and

_____ months

A13 In years and months, how long have you held your ***current*** position at this centre? (Include leave of absence, e.g. maternity leave).

_____ years and

_____ months

A14 What were you doing immediately before starting work at this centre? (Indicate **ONE** only).

- ❑ worked at another child care centre
- ❑ provided paid child care in my own home or the child's home
- ❑ worked in another field related to young children
- ❑ worked in another field NOT related to young children
- ❑ attended high school
- ❑ attended a college or university program
- ❑ was neither working nor attending an educational program
- ❑ other, please specify _____

A15 How many years in total have you worked in the child care field? (Working is defined as 10 hours or more per week. ***Include*** the time working at your current centre but ***exclude*** time spent as a student on field placement).

- ❑ less than one year
- ❑ one to three years
- ❑ over three years, up to five years
- ❑ over five years, up to ten years
- ❑ over ten years, up to 15 years
- ❑ over 15 years

A16 How many centres have you worked in over the past five years, ***excluding*** practicum settings (field placements as part of basic training) but ***including*** the centre you are now working in?

_____ centre(s)

Section B: Wages, benefits and working conditions

B1 How often do you get a paycheque?

- ❑ Each week
- ❑ Every two weeks
- ❑ Twice per month
- ❑ Once per month
- ❑ Other, please specify _____

B2 Excluding paid overtime, approximately how many hours do you work during each pay period?

_____ hours

B3 Excluding paid overtime, what is your total pay ***before*** deductions and taxes?

$ _____ per pay cheque

B4 Excluding paid overtime, what is your total take-home pay ***after*** deductions and taxes?

$ _____ per pay cheque

B5 If you were employed in the child care field in April of last year, please indicate your work status in ***the child care field*** for each of the twelve months between April 1, 1997 and April 1, 1998. Only ONE box should be filled for each month. If you were ***not*** employed in the child care field last April, skip to B6.

Month	**Worked full-time (30 hours or more a week)**	**Worked part-time (less than 30 hours a week)**	**Did not work in child care**	
			Voluntarily (Wanted time off)	**Involuntarily (Wanted to work)**
April/97	❑	❑	❑	❑
May/97	❑	❑	❑	❑
June/97	❑	❑	❑	❑
July/97	❑	❑	❑	❑
Aug/97	❑	❑	❑	❑
Sept/97	❑	❑	❑	❑
Oct/97	❑	❑	❑	❑
Nov/97	❑	❑	❑	❑
Dec/97	❑	❑	❑	❑
Jan/98	❑	❑	❑	❑
Feb/98	❑	❑	❑	❑
March/98	❑	❑	❑	❑

B6 Please indicate all of the following situations that applied to you between April 1, 1997 and April 1, 1998. Centre closed part of the year (include ***only*** periods longer than the normal Christmas/New Year closing)

- ❑ temporarily laid off, then called back to work at the same centre
- ❑ sent home from work one or more days because of low child attendance
- ❑ worked additional hours or days because of seasonal demand (e.g. extended hours during harvest season)
- ❑ none of the above apply

B7 How are wage increases determined at your centre? (Indicate **ALL** that apply).

- ❑ Regular annual increase
- ❑ Regular cost-of-living increase
- ❑ On the basis of additional training/education
- ❑ Job performance
- ❑ Through collective agreements negotiated by a union or other association, e.g. a staff group
- ❑ Through personal negotiation with the director
- ❑ Owner/Director decides
- ❑ Board of Directors decides
- ❑ Don't know how pay increases are determined
- ❑ Other, please specify _____

B8 In the past ***two years*** has your annual salary:

- ❑ Remained the same
- ❑ Increased, because _____
- ❑ Decreased, because _____

B9 Which of the following are available at your centre for teaching staff?

- ❑ written job description
- ❑ written job contract
- ❑ written salary schedule
- ❑ a staff manual outlining staff policies
- ❑ regular written job performance appraisal
- ❑ formal grievance procedure
- ❑ a room that is set aside for staff use only
- ❑ a separate staff washroom
- ❑ a resource room or staff library (include any collection of child care journals and/or books available for staff use)
- ❑ none of the above

B10 In the past ***two years*** have benefits at your centre:

- ❑ Remained the same
- ❑ Improved
- ❑ Declined
- ❑ Don't know if there have been changes

B11 Are you represented by a union?

- ❑ No
- ❑ Yes. What is the union's name? _____
- ❑ Don't know _____

Section C: Other paid work

C1 We are interested in the extent to which centre staff engage in other types of paid work and why. Do you presently do any other paid work in addition to your job at the child care centre?

- ❑ No (Skip to Section D)
- ❑ Yes

C2 When is this other type of paid work done?

- ❑ during the summer vacation only
- ❑ during the program year only
- ❑ all year (both summer vacation and during the program year)
- ❑ other, please specify _____

C3 During the program year, approximately how many hours per week on average do you spend doing this other type of paid work?

_____ hours per week on average.

C4 Why do you do this other paid work? Please write in a response.

_____

Section D: Feelings about the child care field

D1. In your opinion, what are the three most **positive** aspects of working in the child care field? Write in the ***three*** that are most important to you.

1. _____ (most positive)
2. _____ (second most positive)
3. _____ (third)

D2 In your opinion, what are the three most **negative** aspects of working in the child care field? Write in the ***three*** aspects that you feel are the most negative.

1. _____ (most negative)
2. _____ (second most negative)
3. _____ (third)

D3 Have you ever resigned from a position in the child care field?

- ❑ No (Skip to D5)
- ❑ Yes

D4 What was the ***most important*** reason for your decision to resign from this previous child care position? (Please indicate only one reason. If you have resigned from more than one position, answer this question on the basis of your most recent resignation).

- ❑ offered a better job elsewhere
- ❑ maternity or parental leave
- ❑ family move
- ❑ returned to school
- ❑ problems with my own child care arrangement
- ❑ found the job too stressful
- ❑ illness
- ❑ dissatisfied with the pay
- ❑ dissatisfied with the benefits
- ❑ lack of promotion possibilities
- ❑ Other, please specify

D5. Do you think you will be promoted within this centre?

- ❑ No
- ❑ Yes

D6 Do you think you could earn more money or achieve a higher status position if you moved to another centre?

- ❑ No
- ❑ Yes

D7 Do you think you would need to leave the child care field in order to earn more money or achieve a higher status position?

- ❑ No
- ❑ Yes

D8 Do you feel that the knowledge and experience you have gained working in a child care centre would assist you to obtain a job in any of the following:

- ❑ child care-related work, e.g family child care, a family resource centre
- ❑ another child-related field, e.g. an agency providing services to children with special needs or an elementary school
- ❑ a field unrelated to child care or young children
- ❑ don't know

D9 In your opinion, which of the following groups generally respect you as a child care professional? (Indicate **ALL** that apply)

- ❑ your own family
- ❑ the families of the children in your centre
- ❑ other people working in the child care field
- ❑ professionals in other fields
- ❑ your friends
- ❑ the public at large
- ❑ other groups, please specify _____
- ❑ no groups

D10 Do you expect to be working in the field of child care three years from now?

- ❑ No. Why not? _____
- ❑ Yes

D11 If you were choosing a career now, would you choose child care?

- ❑ No. Why not? _____
- ❑ Yes. Why? _____
- ❑ Don't know

Section E: Feelings about your centre

E1. Indicate **ALL** of the following that describe how you feel about your **relationship with most of your co-workers most of the time.**

If you are working in a small centre where there is only you and your director (or employer), fill in this box ❑ and skip to E2

- ❑ My colleagues support and encourage me
- ❑ I enjoy the company of my colleagues
- ❑ My colleagues are hard to get to know
- ❑ My colleagues share personal concerns with me
- ❑ My colleagues are critical of my performance
- ❑ I feel I can't trust my colleagues.
- ❑ My colleagues are not very helpful
- ❑ My colleagues share ideas and resources

E2. Indicate **ALL** of the following that describe **your relationship with the person who supervises you.**
My supervisor:

- ❑ Encourages me to try new ideas
- ❑ Supervises me too closely
- ❑ Provides support and helpful feedback
- ❑ Sets high but realistic standards
- ❑ Makes me feel inadequate
- ❑ Trusts my judgement
- ❑ Is unavailable
- ❑ Appreciates the difficulties of balancing work and family responsibilities
- ❑ Is hard to please

E3 Indicate **ALL** of the following that describe how you feel about **your working environment.**

- ❑ The centre is a bright and attractive place to be in
- ❑ I always know where to find the things I need
- ❑ I need some new equipment and materials to do my job well
- ❑ We need a separate room where staff can relax during breaks
- ❑ I can't find a place to carry on a private conversation.
- ❑ It is too noisy.
- ❑ The conditions meet my standards of cleanliness
- ❑ Teachers have a place to store personal belongings

E4 Indicate **ALL** of the following that describe how you feel about your **pay, benefits and promotion opportunities.**

- ❑ My pay is fair considering my background and skills
- ❑ My pay is fair compared with what other centres pay
- ❑ My salary does not adequately reflect the work I do
- ❑ I have enough time off for vacations
- ❑ My benefits are inadequate
- ❑ I am not progressing in my job as rapidly as I would like
- ❑ Chances for promotion are good

E5 Fill in the box that best reflects how each statement describes your feelings about **your work situation** most of the time.

	Never or Not at all	**Rarely/to a minor Degree**	**Occasionally**	**A good part of the Time**	**Usually/feel strongly**
The work I do is stimulating and challenging	❑	❑	❑	❑	❑
I feel physically exhausted at the end of the work day	❑	❑	❑	❑	❑
My work gives me a sense of accomplishment	❑	❑	❑	❑	❑
There is too little time to do all that needs to be done	❑	❑	❑	❑	❑
I feel emotionally drained at the end of the day	❑	❑	❑	❑	❑
I make a positive difference in the children's lives	❑	❑	❑	❑	❑
Centre policies and procedures are well-defined	❑	❑	❑	❑	❑
I feel frustrated by this job	❑	❑	❑	❑	❑
I have reasonable control over most things that affect my satisfaction with my job	❑	❑	❑	❑	❑
I feel my job makes good use of my skills and abilities	❑	❑	❑	❑	❑
I take pride in my centre	❑	❑	❑	❑	❑
I know the centre could be providing a better service, but there is nothing I can do about it	❑	❑	❑	❑	❑
My centre provides a well-rounded program for the children who attend	❑	❑	❑	❑	❑
My centre really supports the families of the children who attend	❑	❑	❑	❑	❑

E6 Indicate **ALL** of the following that apply to **how decisions are made at your centre most of the time**

- ❑ People are encouraged to be self-sufficient in making decisions
- ❑ The director likes to make most of the decisions
- ❑ People don't feel free to express their opinions
- ❑ Everyone provides input on the content of staff meetings
- ❑ People provide input but the decisions have already been made
- ❑ Teachers make decisions about things that directly affect them
- ❑ Teachers are seldom asked their opinion on issues
- ❑ The director values everyone's input for major decisions

E7 Listed below are some common organizational decisions and actions. How much influence do you ***currently have*** in each of these areas?

	Very little influence	Some influence	Considerable influence
Ordering materials and supplies	❑	❑	❑
Interviewing/hiring new staff	❑	❑	❑
Determining program objectives	❑	❑	❑
Orientation of new teachers	❑	❑	❑
Planning daily schedule of activities	❑	❑	❑
Developing or changing policies	❑	❑	❑
Influencing how procedures are developed or determined	❑	❑	❑

E8 How much influence would you ***like to have*** in each of the areas below?

	Very little Influence	Some Influence	Considerable Influence
Ordering materials and supplies	❑	❑	❑
Interviewing/hiring new staff	❑	❑	❑
Determining program objectives	❑	❑	❑
Orientation of new teachers	❑	❑	❑
Planning daily schedule of activities	❑	❑	❑
Developing or changing policies	❑	❑	❑
Influencing how procedures are developed or determined	❑	❑	❑

E9 On a scale of 1 to 5, how secure do you feel that your current job is?

- ❑ 1 (not secure at all)
- ❑ 2 (not secure
- ❑ 3 (somewhat secure)
- ❑ 4 (moderately secure)
- ❑ 5 (very secure)

E10 Do you think you will still be working at this centre one year from now?

- ❑ No or probably not. Why not? _____
- ❑ Yes

Section F: Educational background

F1 What is the highest level of education that you have completed in any subject area?

- ❑ some high school
- ❑ high school diploma
- ❑ one-year college certificate
- ❑ two-year college certificate
- ❑ one-year college diploma
- ❑ two-year college diploma
- ❑ three-year college diploma
- ❑ post-diploma certificate
- ❑ bachelor's degree
- ❑ post-graduate certificate
- ❑ post-graduate degree

F2 What is the highest level of formal education you have completed that was **specifically related to child care provision, early childhood education, or child development?** (Please ***exclude*** first aid and CPR certificates).

- ❑ none
- ❑ provincial government course lasting less than one year
- ❑ one-year college certificate
- ❑ two-year college certificate
- ❑ two-year college diploma
- ❑ three-year college diploma
- ❑ post-diploma certificate
- ❑ bachelor's degree
- ❑ post-graduate certificate
- ❑ post-graduate degree

F3 Are you currently enrolled in a formal educational program?

- ❑ No (Skip to Section G)
- ❑ Yes

F4 Which of the following are you working towards?

- ❑ a certificate
- ❑ a license
- ❑ a diploma
- ❑ a degree
- ❑ other, please specify _____

F5 What is the area of specialization (the subject matter)?

_____

F6 Why are you taking this educational program? Please give the single most important reason.

_____

Section G: Professional development

G1 Have you participated in any professional development activities during the **past twelve months**, for example, a conference, workshop or course? (Do not include activities where you were a presenter or a workshop leader).

- ❑ No (Skip to G4)
- ❑ Yes

G2 What types of professional development did you participate in during the past 12 months? (Do not include activities where you were a presenter or workshop leader).

- ❑ conference
- ❑ workshop
- ❑ credit course at a post-secondary institution but not as part of a degree or certificate program
- ❑ non-credit course at a post-secondary institution
- ❑ other in-service training
- ❑ other, please specify _____

G3 Did the centre provide any of the following types of assistance to enable you to participate in any of these activities? (Do ***not*** include in-service training in your own centre).

- ❑ payment of the registration fee
- ❑ provision of un-paid release time
- ❑ provision of ***paid*** release time
- ❑ none of the above

G4 In the ***past three years*** which, if any, of the following types of workshops or courses have you participated in?

- ❑ intervention with challenging behaviours
- ❑ interventions for speech or language problems
- ❑ child abuse prevention/identification
- ❑ early identification of learning disabilities
- ❑ none of the above

G5 Have you ***ever*** had a course in anti-bias curriculum or cultural diversity in child care settings?

- ❑ No
- ❑ Yes

G6 If you ***have*** participated in a workshop, conference or course within the past 12 months, other than as a presenter or leader, fill in the following box ❑ and skip to G7

If you ***did not*** participate in any workshops, conferences or courses within the past 12 months, please rank the importance of each of the following reasons for your non-participation. Fill in a box beside **EACH** potential reason.

	Not at all important	**Somewhat important**	**Very important**
No workshops, conferences or courses within a reasonable distance from my home	❑	❑	❑
I had already taken the available courses and workshops in my area	❑	❑	❑
The timing always seemed to conflict with the care needs of my own children	❑	❑	❑
Could not get release time	❑	❑	❑
I didn't have any information on relevant workshops, conferences or courses	❑	❑	❑
Everything was too costly	❑	❑	❑
I did not have suitable transportation	❑	❑	❑
None of the available workshops, courses or conference presentation were relevant to my needs	❑	❑	❑
I was just too busy	❑	❑	❑

G7 Have you given any presentations or workshops for professional groups, aside from staff in your own centre, during the past 12 months?

- ❑ No
- ❑ Yes. How many? _____

G8 To which child care organizations or associations, if any, do you currently belong?

- ❑ none
- ❑ a provincial or territorial child care organization
- ❑ the Canadian Child Care Federation (CCCF)
- ❑ the Child Care Advocacy Association of Canada (CCAAC)
- ❑ National Association for the Education of Young Children (NAEYC)
- ❑ other, please specify _____

G9 Which child care journals or newsletters do you subscribe to or read regularly?

- ❑ none

Or _____

G10 Approximately how many professional or child care books did you read during the past 12 months?

- ❑ none
- ❑ 1 to 3
- ❑ 4 or more

Section H: Personal background

The questions in this section ask about your own background, including your household structure and some details about your own child care arrangements (for those with children). This information will assist us to describe child care teachers as a population.

H1. Are you:

- ❑ Male
- ❑ Female

H2. What was your age on your last birthday?

- ❑ under 20
- ❑ 20-24
- ❑ 25-29
- ❑ 30-34
- ❑ 35-39
- ❑ 40-44
- ❑ 45-49
- ❑ 50 or older

H3 What is your marital status?

- ❑ Married or living with a partner
- ❑ Single (includes separated, divorced or widowed)

H4. How long have you lived in your present town or city?

- ❑ Under one year
- ❑ One to two years
- ❑ Three to five years
- ❑ Over five years

H5 How many children (birth, adopted, foster or stepchildren) in each age group live with you full- or part-time?

- ❑ No children living with me (Skip to H9)

_____ children 0 to 17 months old

_____ children 18 to 35 months old

_____ children 3 to 5 years old

_____ children 6 to 12 years old

_____ children age 13 to 18 years old

_____ children over 18 years old

H6 How many of these children, if any, attend the child care centre where you work during your working hours?

_____ children

H7 In total, about how much do you pay for child care for **ALL** your children combined each month?

- ❑ Nothing
- ❑ $1- $200
- ❑ $201 - $400
- ❑ $401 - $600
- ❑ $601 - $800
- ❑ $801 - $1000
- ❑ More than $1000

H8 Do you receive a government child care fee subsidy?

- ❑ No
- ❑ Yes

H9 Approximately what percentage of the total cost of maintaining your household is covered by your salary?

- ❑ 80% to 100% of the cost of maintaining my household comes from my salary
- ❑ over 50% but less than 80%
- ❑ over 25% but less than 50%
- ❑ 25% or less

Section J: Recommendations for the child care field

J1. How helpful do you believe each of the items below would be in making the child care field more satisfying to work in? (Please fill in one box under one of the columns for each item).

	Would not help at all	Would help somewhat	Would help a lot
Providing a better salary	❑	❑	❑
Improving benefits	❑	❑	❑
Providing staff with a greater decision-making role in caring for the children	❑	❑	❑
Promoting more respect for people working in child care	❑	❑	❑
Providing more support services to centres caring for children with special needs or challenging behaviour	❑	❑	❑
Reducing the number of children per teacher	❑	❑	❑
Providing regular breaks away from the children during the work day	❑	❑	❑
Providing regularly scheduled (not overtime) preparation time	❑	❑	❑
Providing regularly scheduled time to communicate with parents	❑	❑	❑
Providing affordable opportunities for continuing education	❑	❑	❑
Establishing a career ladder	❑	❑	❑
Other, please specify	❑	❑	❑

J2. What do you consider to have been the **THREE** most pressing problems facing your centre this past year?

1. _____ most pressing problem
2. _____ second most pressing problem
3. _____ third most pressing problem.

Thank you very much for completing this questionnaire. We realize that your participation involved both time and effort. We would appreciate any additional comments that you might wish to make. (Please put your comments on another piece of paper)

Appendix E

Director Questionnaire

General instructions

This questionnaire is intended for directors of child care centres and should be completed ***only*** by the person who completed the Centre Questionnaire. It includes questions to help us to develop a profile of centre directors across the country — your experiences, education and training, the multiple roles you have, your feelings about your centre, and your views about the child care field.

Many of the questions simply require you to choose the relevant response. Therefore, the questionnaire is not as long as it appears! Trial runs indicate that it takes approximately 45 minutes to complete the whole questionnaire. Please provide an answer to ***each*** question, unless specifically instructed to skip a question or questions. Providing an answer to each question may require filling in the box beside the option "don't know."

All the information that you provide will be treated confidentially.

If you have any questions, feel free to contact Gillian Doherty between 9 am and 6 pm (Ontario time) toll free at 1-888-664-6026.

Section A: Child care experience

A1 In your position as director, do you also have direct teaching/care responsibilities?

- ❑ No (Skip to A3)
- ❑ Yes

A2 What are the ages of the children for whom you personally provide education and care on a regular basis? (Please indicate all options that apply)

- ❑ 0 - 17 months old
- ❑ 18 - 35 months old
- ❑ 3, 4 and 5 year olds

A3 In years and months, how long have you worked at this centre? (Include leave of absence, e.g. maternity leave).

_____ years and

_____ months

A4 In years and months, how long have your held your ***current*** position at this centre? (Include leave of absence, e.g. maternity leave).

_____ years and

_____ months

A5 What were you doing immediately before starting work at this centre? (Indicate **ONE** option only).

- ❑ worked at another child care centre
- ❑ provided paid child care in my own home or the child's home
- ❑ worked in another field related to young children
- ❑ worked in a another job related to human services, but not specifically related to young children
- ❑ worked in an unrelated field
- ❑ attended a college or university program
- ❑ was neither working nor attending an educational program
- ❑ other, please specify

A6 How many centres have you worked in over the past five years, ***excluding*** practicum settings (field placements as part of basic training) but ***including*** the centre you are now working in?

_____ centre(s)

A7 How many years in total have you worked in the child care field? (Working is defined as 10 hours or more per week. ***Include*** the time working at your current centre but ***exclude*** time spent as a student on field placement).

_____ years

A8 In a ***typical work month***, approximately what percentage of your time is spent in each activity listed below? (A rough estimate is alright. You may want to read through the whole list before responding).

_____ % directly caring for children

_____ % activity planning and preparation (e.g. assembling materials for an activity)

_____ % strategic planning and goal setting for the program as a whole

_____ % interaction with parents (e.g. conversation, phone call)

_____ % staff supervision (e.g. staff allocation, performance appraisals)

_____ % meeting with staff individually or in groups to provide assistance in program development or for problem-solving

_____ % meetings with people other than parents or staff

_____ % supervising practicum students (students on placement)

_____ % administration (e.g. ordering supplies, book-keeping)

_____ % maintenance (e.g. cleaning, repairing)

_____ % other, please specify _____

A9 In a ***typical work week:***

a) how many hours are you regularly scheduled to work?

_____ hours per week

b) how many hours of unpaid overtime, if any, do you work ***at your centre?*** (e.g. attending staff or parent meetings)

_____ hours per week

c) how many hours of unpaid overtime, if any, do you work at ***another location*** (e.g. your home) on tasks related to the centre?

_____ hours per week

Different provinces and territories use different terms to describe the position a person may have in a child care centre. In order to obtain some consistency in the way people respond, please read the following definitions carefully. You will need to use them to answer the next two questions.

ASSISTANT TEACHER - refers to a person who works with children under the direction of another teacher, a supervisor, or the centre director.

TEACHER - refers to a person who has primary responsibility for a group of children. This person also may have supervisory responsibilities for assistant teachers.

SUPERVISOR or HEAD TEACHER - refers to a person who has primary responsibility for a group of children and also has supervisory responsibilities for teachers.

HEAD SUPERVISOR - refers to the senior person at a given site in an organization where there are several centres under a single administrator or director. This person may have both teaching and administrative duties.

TEACHER-DIRECTOR - refers to a person with both teaching and administrative duties.

ADMINISTRATIVE-DIRECTOR - refers to a person who has administrative duties only.

A10 According to the above definitions, what was your starting position at this centre?

- ❑ Assistant Teacher
- ❑ Teacher
- ❑ Supervisor or Head Teacher
- ❑ Head supervisor
- ❑ Teacher-director
- ❑ Administrative director_____

A11 According to the above definitions, which best describes your current job?

- ❑ Head supervisor
- ❑ Teacher-director
- ❑ Administrative director

Section B: Other paid work

B1 We are interested in the extent to which centre staff engage in other types of paid work and why. Do you presently do any other paid work in addition to your job at the child care centre?

- ❑ No (Skip to Section C)
- ❑ Yes

B2 When is this other type of paid work done?

- ❑ during the summer vacation only
- ❑ during the program year only
- ❑ all year (both summer vacation and during the program year)
- ❑ other, please specify _____

B3 During the program year, approximately how many hours per week on average do you spend doing this other type of paid work?

_____ hours per week on average.

B4 Why do you do this other paid work? Please write in a response.

_____

Section C: Feelings about the child care field

C1. In your opinion, what are the three most **positive** aspects of working in the child care field? Write in the ***three*** that are most important to you.

1. _____ (most positive)
2. _____ (second most positive)
3. _____ (third)

C2 In your opinion, what are the three most **negative** aspects of working in the child care field? Write in the ***three*** aspects that you feel are the most negative.

1. _____ (most negative)
2. _____ (second most negative)
3. _____ (third)

C3 Have you ever resigned from a ***supervisor*** or ***director*** position in the child care field?

- ❑ No (Skip to C5)
- ❑ Yes

C4 What was the ***most*** important reason for your decision to resign from this previous position as a supervisor or director? (Please indicate only one reason).

- ❑ offered a better job elsewhere
- ❑ maternity or parental leave
- ❑ family move
- ❑ returned to school
- ❑ problems with my own child care arrangement
- ❑ found the job too stressful
- ❑ burn out
- ❑ illness
- ❑ lack of resources for looking after children with special needs or challenging behaviour
- ❑ Board of Directors difficult to work with
- ❑ dissatisfied with salary and/or benefits
- ❑ Other, please specify _____

C5. Do you see any possibilities for advancement for yourself in the child care field within the next five years?

- ❑ No
- ❑ Yes

C6 Do you see any possibilities for a lateral move into an equal status but new type of work in the child care field?

- ❑ No
- ❑ Yes

C7 Please indicate if you are already involved in, or would like to be involved in, any of the following activities by filling in the appropriate boxes.

Activity	Do now	Would like to do
a) Mentoring another less experienced director	❑	❑
b) Acting as a practicum supervisor for early childhood education students on placement	❑	❑
c) Curriculum design and/or development of teaching resources for early childhood education students	❑	❑
d) College or university teaching in early childhood education	❑	❑
e) Working in a family support program or child care support program	❑	❑
f) Child care/early childhood education research or consultation	❑	❑

C8 Do you think you would need to leave the child care field in order to earn more money or achieve a higher status position?

❑ No

❑ Yes

C9 In your opinion, which of the following groups generally respect you as a child care? (Indicate **ALL** that apply)

❑ your own family

❑ the families of the children in your centre

❑ other people working in the child care field

❑ professionals in other fields

❑ your friends

❑ the public at large

❑ other groups, please specify _____

❑ no groups

C10 Do you expect to be working in the field of child care three years from now?

❑ No. Why not? _____

❑ Yes

C11 If you were choosing a career now, would you choose child care?

❑ No. Why not? _____

❑ Yes. Why? _____

❑ Don't know

Section D: Feelings about my centre

D1 If you are the owner-director, fill in the following box ❑ and skip to D2

Indicate ALL of the following that describe your relationship with the person or group to whom you report or that has any supervisory responsibility for your performance. This person or group could be an owner or manager in some cases, or a Board of Directors or group in a similar role for other centres.

The person/group to whom I am directly responsible:

- ❑ Encourages me to try new ideas
- ❑ Gets too involved in daily administrative issues that should be left to me to handle
- ❑ Does not really understand my priorities for the children
- ❑ Seeks my input in policy development
- ❑ Trusts my judgement
- ❑ Is often unresponsive to my requests for direction
- ❑ Is hard to please
- ❑ Is supportive

D2 Fill in the box that best captures how often or strongly each statement describes your feeling about **your work at your centre most of the time.**

	Never or not at all	Rarely/to a minor degree	Occasionally	A good part of the time	Usually/feel strongly
The work I do is stimulating and challenging	❑	❑	❑	❑	❑
I feel physically exhausted at the end of the work day	❑	❑	❑	❑	❑
My work gives me a sense of accomplishment	❑	❑	❑	❑	❑
There is too little time to do all that needs to be done	❑	❑	❑	❑	❑
My staff and I work well together as a team	❑	❑	❑	❑	❑
My job makes an important difference in the lives of the children who attend the centre	❑	❑	❑	❑	❑
I feel emotionally drained at the end of the day	❑	❑	❑	❑	❑
I have reasonable control over *important* decisions that affect my program or staff	❑	❑	❑	❑	❑
Because of job demands, I have difficulty finding time for self-rejuvenation	❑	❑	❑	❑	❑
I feel frustrated by this job	❑	❑	❑	❑	❑
I feel my job makes good use of my skills and abilities	❑	❑	❑	❑	❑

D3 Please fill in the box that best reflects how each statement describes your feelings about **your centre** most of the time.

	Never or not at all	Rarely/to a minor degree	Occasionally	A good part of the time	Usually/feel strongly
I take pride in my centre	❑	❑	❑	❑	❑
I know the centre could be providing a better service, but there is nothing I can do about it	❑	❑	❑	❑	❑
My centre provides a well-rounded program for the children who attend	❑	❑	❑	❑	❑
My centre really supports the families of the children who are attend	❑	❑	❑	❑	❑
I don't care what happens to this place after I leave	❑	❑	❑	❑	❑
My centre is a very pleasant place in which to work	❑	❑	❑	❑	❑
Its hard to feel committed to this place	❑	❑	❑	❑	❑

D4 Do you feel you have adequate access to the following sources of advice or consultation when faced with a challenging situation involving a child or family or a problem involving staff at your centre? (Please fill in one box beside each possible source of advice or consultation).

	Adequate	Somewhat adequate	Not adequate at all	Not available/ never had contact with
a) Director of another centre in my community	❑	❑	❑	❑
b) Resource teacher, special needs worker, or supported care worker	❑	❑	❑	❑
c) University or college faculty	❑	❑	❑	❑
d) Public health nurse or unit	❑	❑	❑	❑
e) Local children's mental health professional or child guidance clinic	❑	❑	❑	❑
f) School board psychologist	❑	❑	❑	❑
g) Local child welfare office	❑	❑	❑	❑
h) Speech or language therapist	❑	❑	❑	❑
i) Physical therapist	❑	❑	❑	❑
j) Occupational therapist	❑	❑	❑	❑
k) Physician or pediatrician	❑	❑	❑	❑

D5 On a scale of 1 to 5, how secure do you feel that your current job is?

- ❑ 1 (not secure at all)
- ❑ 2 (not secure
- ❑ 3 (somewhat secure)
- ❑ 4 (moderately secure)
- ❑ 5 (very secure)

D6 Do you think you will still be working at this centre one year from now?

- ❑ No or probably not. Why not? _____
- ❑ Yes

Section E: Educational background

E1 What is the ***highest*** level of formal education that you have completed in any subject area? (Please indicate below by filling in the box beside the appropriate choice in the first column (high school diploma, college certificate, etc.) and writing the subject or main area of specialization beside it).

Level of education	Highest level completed	Subject/specialization
a) high school diploma	❑	❑
b) one-year college certificate	❑	❑
c) two-year college certificate	❑	❑
d) one-year college diploma	❑	❑
e) two-year college diploma	❑	❑
f) three-year college diploma	❑	❑
g) post-diploma certificate	❑	❑
h) bachelor's degree	❑	❑
i) post-graduate certificate	❑	❑
j) post-graduate degree	❑	❑

E2 What is the highest level of formal education you have completed that was **specifically related to child care provision, early childhood education, or child development.**

- ❑ do not have any formal education directly related to child care provision, early childhood education, or child development
- ❑ _____

E3 Do you have a certificate, diploma or degree in business administration or in the management of early childhood programs?

- ❑ No
- ❑ Yes. Which of these do you have? _____

E4 Are you currently enrolled in a formal educational program?

- ❑ No (Skip to Section F)
- ❑ Yes

E5 Which of the following are you working towards?

- ❑ a certificate
- ❑ a license
- ❑ a diploma
- ❑ a degree
- ❑ other, please specify _____

E6 What is the area of specialization (the subject matter)? _____

E7 Why are you taking this educational program? Please give the single most important reason. _____

_____

Section F: Professional development

F1 Have you participated in any professional development activities during the **past twelve months**, for example, a conference, workshop or course? (Do not include activities where you were the presenter or provider of a workshop or conference presentation).

- ❑ No (Skip to F4)
- ❑ Yes

F2 What type of professional development did you participate in during the past 12 months? (Do not include activities where your role was that of leader, presenter or provider of a workshop or presentation).

- ❑ conference
- ❑ workshop
- ❑ non-credit course at a post-secondary institution
- ❑ credit course but not part of work towards a degree
- ❑ other in-service training
- ❑ other, please specify _____

F3 Did the centre provide any of the following types of assistance for you to participate in any of these activities?

- ❑ payment of the registration fee
- ❑ provision of unpaid release time
- ❑ provision of ***paid*** release time
- ❑ none of the above

F4 In the ***past three years*** have you participated in any workshops or courses related to:

- ❑ intervention with challenging behaviours
- ❑ interventions for speech or language problems
- ❑ inclusion of children with special needs in regular child care settings
- ❑ child abuse prevention/identification
- ❑ early identification of learning or developmental disabilities
- ❑ anti-bias curriculum or cultural diversity in child care settings
- ❑ none of the above

F5 If you have participated in a workshop, conference or course within the past **12 months**, other than as a presenter or leader, fill in the following box ❑ and go to F6.

If you did not participate in any workshops, conferences or courses within the past 12 months, please rank the importance of each of the following reasons for your non-participation. Fill in a box beside **EACH** potential reason.

	Not at all important	Somewhat important	Very important
No workshops, conferences or courses within a reasonable distance from my home	❑	❑	❑
I had already taken the available courses and workshops in my area	❑	❑	❑
The timing always seemed to conflict with the care needs of my own children	❑	❑	❑
Could not get release time	❑	❑	❑
I didn't have any information on relevant workshops, conferences or courses	❑	❑	❑
Everything was too costly	❑	❑	❑
I did not have suitable transportation	❑	❑	❑
None of the available workshops, courses or conference presentations were relevant to my needs	❑	❑	❑
I was just too busy	❑	❑	❑
Other reason	❑	❑	❑

F6 To which child care organizations or associations, if any, do you currently belong? Please indicate ALL that apply.

- ❑ none
- ❑ a provincial or territorial child care organization
- ❑ the Canadian Child Care Federation (CCCF)
- ❑ the Child Care Advocacy Association of Canada (CCAAC)
- ❑ National Association for the Education of Young Children (NAEYC)
- ❑ other, please specify _____

F7 Which child care journals or newsletters do you subscribe to or read regularly?

- ❑ none

Or _____

F8 Approximately how many professional or child care books did you read during the past 12 months?

- ❑ none
- ❑ 1 to 3
- ❑ 4 or more

F9 Have you given any presentations or workshops for professional groups, aside from your own staff, during the past 12 months?

- ❑ No
- ❑ Yes. How many? _____

F10 Do you regularly participate in any community committees related to children's and/or family services, e.g. an inter-agency planning or coordination group for children's services?

- ❑ No
- ❑ Yes. How many community committee meetings did you attend during the past **12 months** ? _____

F11 Approximately how many hours, if any, do you spend per month attending meetings or involved in other tasks related to community committees or in collaborative work with other community agencies?

- ❑ None

_____ hours per month

Section G: Personal background

The questions in this section ask about your own background, including your household structure and some details about your own child care arrangements (for those with children). This information will assist us to describe child care centre directors as a population.

G1. Are you:

- ❑ Male
- ❑ Female

G2. What was your age on your last birthday?

- ❑ 20-24
- ❑ 25-29
- ❑ 30-34
- ❑ 35-39
- ❑ 40-44
- ❑ 45-49
- ❑ 50 or older

G3 What is your marital status?

- ❑ Married or living with a partner
- ❑ Single (includes separated, divorced or widowed)

G4. How long have you lived in your present town or city?

- ❑ Under one year
- ❑ One to two years
- ❑ Three to five years
- ❑ Over five years

G5 How many children (birth, adopted, foster or stepchildren) in each age group live with you full- or part-time?

- ❑ No children living with me (Skip to G9)

_____ children 0 to 17 months old

_____ children 18 to 35 months old

_____ children 3 to 5 years old

_____ children 6 to 12 years old

_____ children age 13 to 18 years old

_____ children over 18 years old

G6 How many of these children, if any, attend the child care centre where you work during your working hours?

_____ children

G7 In total, about how much do you pay for child care for **ALL** your children combined each month?

- ❑ Nothing
- ❑ $1- $200
- ❑ $201 - $400
- ❑ $401 - $600
- ❑ $601 - $800
- ❑ $801 - $1000
- ❑ More than $1000

G8 Do you receive a government child care fee subsidy?

- ❑ No
- ❑ Yes

G9 Approximately what percentage of the total cost of maintaining your household is covered by your salary?

- ❑ 80% to 100% of the cost of maintaining my household comes from my salary
- ❑ over 50% but less than 80%
- ❑ over 25% but less than 50%
- ❑ 25% or less

Section H: Recommendation for the child care field

H1 How helpful do you believe each of the items below would be in making the child care field more satisfying to work in? Please fill in one box under one of the columns for each item.

	Would not help at all	Would help somewhat	Would help a lot
Providing a better salary	❑	❑	❑
Improving benefits	❑	❑	❑
Providing staff with a greater decision-making role in caring for the children	❑	❑	❑
Promoting more respect for people working in child care	❑	❑	❑
Providing more support services to centres caring for children with special needs or challenging behaviour	❑	❑	❑
Reducing the number of children per teacher	❑	❑	❑
Providing regular breaks away from the children during the work day	❑	❑	❑
Providing regularly scheduled (not overtime) preparation time	❑	❑	❑
Providing regularly scheduled time to communicate with parents	❑	❑	❑
Providing affordable opportunities for continuing education	❑	❑	❑
Establishing a career ladder	❑	❑	❑
Other,	❑	❑	❑

_____

H2 In your view, and on the basis of your experience, do you feel that some minimum level of training or background preparation should be required for directors of child care programs as part of the provincial/territorial regulations? If so, what do you feel should be the minimum requirement? (Please fill in all boxes that apply).

- ❑ no minimum requirement needed
- ❑ two-year diploma or certificate in ECE or a related field
- ❑ a university degree in child studies, ECE, or a related field
- ❑ specific coursework in administration of a child care program
- ❑ specific coursework in business administration
- ❑ specific coursework in inclusion of children with special needs
- ❑ specific coursework in anti-bias curriculum or addressing cultural diversity in child care settings

H3 What do you consider to have been the **THREE** most pressing problems facing the child care field this past year?

1. _____ most pressing problem
2. _____ second most pressing problem
3. _____ third most pressing problem

Thank you very much for completing this questionnaire. We realize that your participation involved both time and effort. We would appreciate any additional comments that you may wish to make. (Please put your comments on another sheet of paper).

Appendix F

Caregiver Interaction Scale *(CIS)*

	Not at all	Somewhat	Quite a bit	Very much
1. Speaks warmly to the children				
2. Seems critical of the children				
3. Listens attentively when children speak to him/her				
4. Places high value on obedience				
5. Seems distant or detached from the children				
6. Seems to enjoy the children				
7. When the children misbehave, explains the reason for the rule they are breaking				
8. Encourages the children to try new experiences				
9. Speaks with irritation or hostility to the children				
10. Seems enthusiastic about the children's activities and efforts				
11. Threatens children when trying to control them				
12. Spends considerable time in activity not involving interaction with the children				

	Not at all	Somewhat	Quite a bit	Very much
13. Pays positive attention to the children as individuals				
14. Talks to children on a level they can understand				
15. Punishes the children without explanation				
16. Encourages children to exhibit prosocial behaviour, e.g. sharing				
17. Finds fault easily with children				
18. Doesn't seem interested in the children's activities				
19. Seems to prohibit many of the things children want to do				
20. Doesn't supervise the children very closely				
21. Expects the children to exercise developmentally inappropriate self-control, e.g to be undisruptive for group, teacher-led activities, to be able to stand in line calmly				
22. When talking to children, kneels, bends or sits at their level to establish better eye contact				
23. Seems unnecessarily harsh when scolding or prohibiting children				

Administration:

Observation should last for a minimum of two hours. The observer puts a check mark in the appropriate column beside each descriptor to indicate whether, overall, the adult's behaviour was like the descriptor "not at all" (less than 25% of observed instances), "somewhat" (roughly between 25% and 50% of observed instances), "quite a bit" (roughly between 50% and 75% of observed instances), or "very much" (description very typical of the behaviour observed).

Scoring:

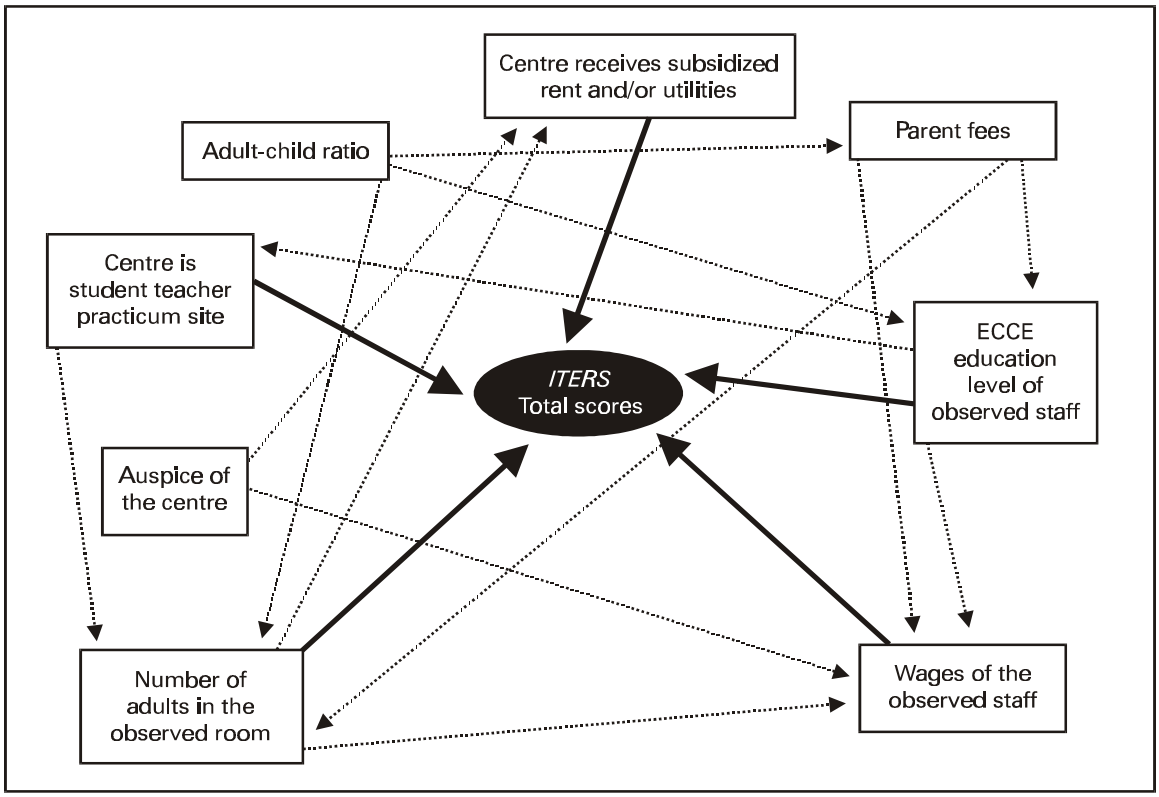
Not at all = 1 point
Somewhat = 2 points
Quite a bit = 3 points
Very much = 4 points

Subscale score calculation:

(a) Add scores from items 1, 3, 6, 7, 8, 10, 13, 14, 16 & 22 = ____ (Sensitivity score)
(b) Add scores from items 2, 4, 9, 11, 15, 17, 19, 21 & 23 = ____ (Harshness score)
(c) Add scores from items 5, 12, 18 & 20 = ____ (Detachment score)

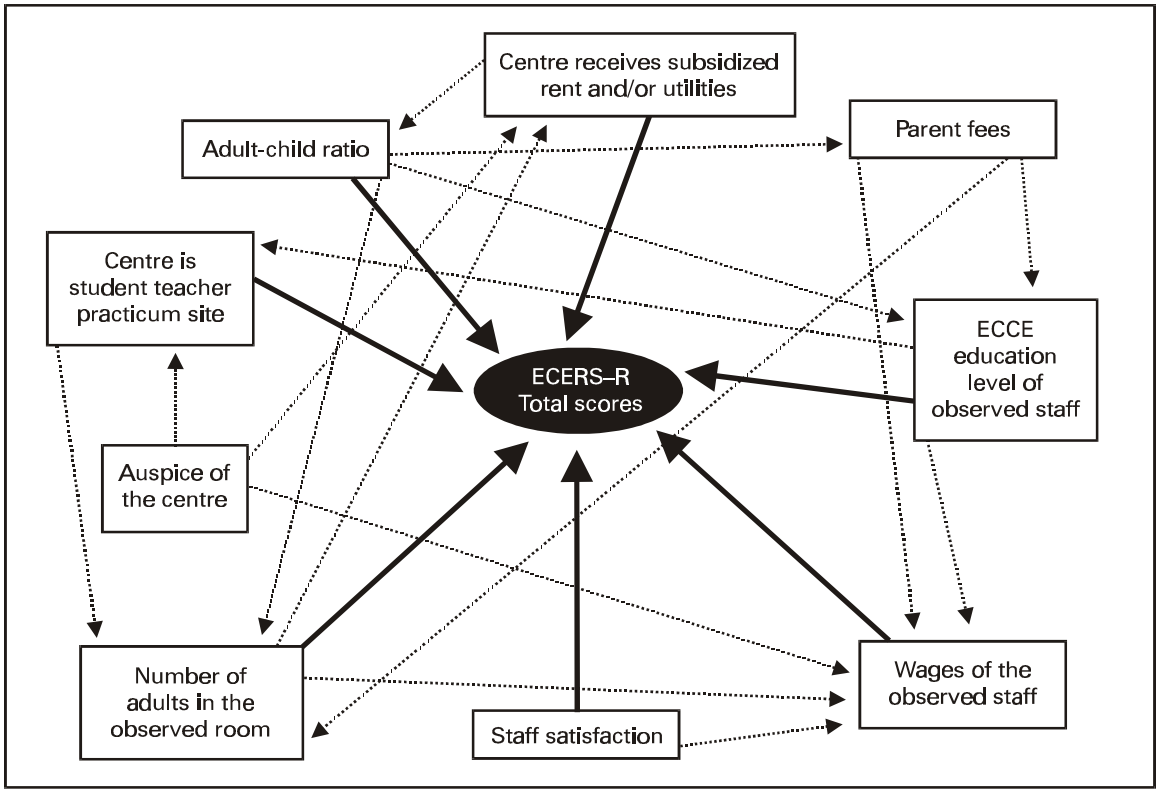
Appendix G

Direct and Indirect Predictors of *ITERS* Scores



Appendix H

Direct and Indirect Predictors of *ECERS–R* Scores



Appendix I

Limitations of the Study and Implications for Future Research

The data reported in this study provide a substantial contribution towards our understanding of the dynamics that contribute to quality programs in child care centres. The study also highlights areas that need further attention in future studies, either through the methodology or in the focus of the research questions themselves. This appendix discusses some of the study's limitations and identifies priorities for continuing research on child care quality.

Sampling and Sample Size

Results generated from self-selected samples must always be considered with caution. Since inclusion in these kinds of studies depends entirely on voluntary participation, the extent to which the data generated by our sample also represent those who declined to participate can never be determined with specificity. However, as discussed in Chapter 3, Section 3.5, it is both accepted research practice and good common sense to presume that the participating sample represents the higher end of both staff and centre characteristics.

One safeguard to raise confidence in the representativeness of the sample is to increase the sample size. More participants generate more data and reduce the possibility that a few extreme cases will seriously skew the results. However, given that data collection for this type of study is time consuming, costly and

in many ways intrusive, recruiting an adequate sample size is a huge challenge. While the total number of participating centres and staff in this study either met or exceeded those used in larger multi-state U.S. studies, there were not sufficient numbers to conduct focused analyses, such as a comparison across auspice in a single jurisdiction. Future studies will need to employ multi-methodological approaches to recruit and select appropriate samples that can be used to address specific policy questions within special jurisdictional or policy domains.

Centre Directors

This study was one of the few child care research projects in Canada that has included information on centre directors, their backgrounds, professional training and administrative style. While important descriptive information was generated, none of the director variables was found to be statistically related to the observed interactions and quality in the observed rooms. There may be a number of reasons for this. First, given the demonstrated statistical power associated with the centre and staff predictors, any possible predictability of the director characteristics may have been simply rendered insignificant. That is, the director data may be able to throw some light on the issue of child care quality, but the brightness of the centre and staff "lights" was far greater. Second, the questionnaires used to collect information on the directors may not have been developed sufficiently. Since future studies on child care quality must certainly include information on the centre directors, we would encourage the use of interviews and focus groups to identify important areas for data collection, extensive pilot-testing of the research instruments, and perhaps the inclusion of case-study methodologies to elicit information that may not be addressed by questionnaires.

Diversity Issues

The data revealed that better quality centres were more likely to include programming and facilities that were appropriate for cultural diversity and for children who have special needs. However, given the scope of the current study and the limitations of time and resources, it was not possible to delve more deeply into the relationships between quality and diversity programming. With increasing numbers of children who have special needs, immigrant/refugee children, and children from diverse cultural and linguistic backgrounds being enrolled in child care centres, it is critical that future research devote a large measure of exclusive attention to diversity issues.

Quality Care and Developmental Outcomes

There are compelling societal and scientific reasons that research be conducted on the impact of the level of child care quality on children's emotional, social, language and intellectual development. Little is known about either the short-term or the long-term consequences of participation in high or low quality child care during a child's early years. The current study has contributed much towards our ability to measure quality and our knowledge of the factors that predict it. The next, most obvious, and most critical step for a society that truly values its children is an examination of the developmental implications of child care.

References

Alexander, K.L. and Entwisle, D.R. (1988). "Achievement in the First 2 Years of School: Patterns and Processes." *Monographs of the Society for Research in Child Development.* 53(2). Chicago, IL: Society for Research in Child Development.

Arnett, J. (1989). "Caregivers in Day Care Centers: Does Training Matter?" *Journal of Applied Developmental Psychology* 10: 541-552.

Battle, K. and Torjman, S. (2000). *Ottawa Should Help Build a National Early Childhood Development System.* Ottawa: Caledon Institute of Social Policy.

Beach, J., Bertrand, J. and Cleveland, G. (1998). *Our Child Care Workforce: From Recognition to Renumeration: More Than a Labour of Love.* A Human Resource Study of Child Care in Canada. Ottawa: Child Care Human Resources Steering Commitee, c/o Canadian Child Care Federation.

Belsky, J. and Steinberg, L.D. (1978). "The Effects of Day Care: A Critical Review." *Child Development* 49: 929-949.

Berk, L. (1985). "Relationship of Educational Attainment, Child Oriented Attitudes, Job Satisfaction, and Career Commitment to Caregiver Behavior Toward Children." *Child Care Quarterly* 14: 103-129.

Broberg, A.G., Wessels, H., Lamb, M.E. and Hwang, C.P. (1997). "Effects of Day Care on the Development of Cognitive Abilities in 8-Year-Olds: A Longitudinal Study." *Developmental Psychology* 33: 62-69.

Bronfenbrenner, U. (1979). *The Ecology Of Human Development.* Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. and Morris, P.A. (1998). "The Ecology of Developmental Processes." In R.M. Lerner, ed., *Handbook of Child Psychology, 5th Edition: Theoretical Models of Human Development,* pp. 993-1028. Toronto: John Wiley.

Burts, D.C., Hart, C.H., Charlesworth, R., Fleege, P.O., Mosely, J. and Thomasson, R.H. (1992). "Observed Activities and Stress Behaviors of Children in Developmentally Appropriate and Inappropriate Kindergarten Classrooms." *Early Childhood Research Quarterly* 7: 297-318.

Canadian Child Care Federation. (1991). *National Statement on Quality Child Care.* Ottawa: Author.

Canadian Child Care Federation. (1993). *National Guidelines for Training in Early Childhood Care and Education.* Ottawa: Author.

Canadian Child Day Care Federation/Canadian Day Care Advocacy Association. (1992). *Caring for a Living: A Study on Wages and Working Conditions in Canadian Child Care.* Ottawa: Canadian Child Day Care Federation.

Childcare Resource and Research Unit. (1994). *Child Care in Canada: Provinces and Territories, 1993.* Toronto: Centre for Urban and Community Studies, University of Toronto.

Childcare Resource and Research Unit. (2000). *Early Childhood Care and Education in Canada: Provinces and Territories, 1998.* Toronto: Centre for Urban and Community Studies, University of Toronto.

Clarke-Stewart, A. (1999). *How Child Care Relates to Children's Cognitive and Language Development: NICHD Study.* Paper presented at the American Association for the Advancement of Science meetings, Anaheim, CA, January 21-26.

Cleveland, G. and Krashinsky, M. (1998). *The Benefits and Costs of Good Child Care: The Economic Rationale for Public Investment in Young Children.* Toronto: Childcare Research and Resource Unit, Centre for Urban and Community Studies, University of Toronto.

Clifford, R.M., Harms, T. and Cryer, D. (1991). *Assessing the Early Childhood Environment for Infants and Toddlers, Family Day Care, and Preschoolers: Three Rating Scales.* Paper presented at the Annual Conference of the National Association for the Education of Young Children, Denver, CO.

Council of Ministers of Education, Canada (CMEC). (1998). "Preparation for Learning: Prechool Education." Discussion paper for the CMEC third national forum. Toronto: Author.

Culkin, M., Morris, J.R. and Helburn, S.W. (1991). "Quality and the True Cost of Child Care." *Journal of Social Issues* 47: 71-86.

Doherty, G. (1995). *Quality Measures in Child Care Projects. Final Report.* Unpublished manuscript. Toronto: Child Care Branch, Ontario Ministry of Community and Social Services.

Doherty, G. (1998). "Wages, Working Conditions and Children's Experience in Child Care." *Interaction* 12(1): 71-86.

Doherty, G. (2000). "Issues in Canadian Child Care: What Does The Research Tell Us?" *Research Connections* 5.

Doherty, G., Lero, D.S., Goelman, H., LaGrange, A. and Tougas, J. (2000). *You Bet I Care! A Canada-Wide Study on Wages, Working Conditions, and Practices in Child Care Centres.* Guelph, Ontario: Centre for Families, Work and Well-Being, Department of Family Relations and Applied Nutrition, University of Guelph.

Doherty, G., Lero, D.S., Goelman, H., Tougas, J., and LaGrange, A. (in press). *Caring and Learning Environments: Quality in Family Child Care Across Canada.* Guelph, Ontario: Centre for Families, Work and Well-Being, Department of Family Relations and Applied Nutrition, University of Guelph.

Doherty, G. and Stuart, B. (1996). *A Profile of Quality in Canadian Child Care Centres.* Guelph, Ontario: Department of Family Studies, University of Guelph.

Duxbury, L. and Higgins, C. (1994). "Families in the Economy." In M. Baker, ed., *Canada's Changing Families: Challenges to Public Policy,* pp. 29-40. Ottawa: Vanier Institute of the Family.

Friesen, B.K. (1995). *A Sociological Examination of the Effects of Auspice on Day Care Quality.* Ph.D. dissertation. Calgary, Alberta: Department of Sociology, University of Calgary.

Goelman, H. (In press). "Training, Quality and the Lived Experience of Child Care." In G. Cleveland and M. Krashinsky, eds., *Our Children's Future: Child Care Policy in Canada*. Toronto: University of Toronto Press.

Goelman, H. and Pence, A.R. (1987). "Effects of Child Care, Family, and Individual Characteristics on Children's Language Development: The Victoria Day Care Research Project." In D. Phillips, ed., *Quality in Child Care: What Does the Research Tell Us?* pp. 89-104. Washington, DC: National Association for the Education of Young Children.

Goelman, H. and Pence, A.R. (1988). "Children in Three Types of Child Care Experiences: Quality of Care and Developmental Outcomes." *Early Childhood Development and Care* 33: 67-76.

Gunnar, M. (1998). "Quality of Early Care and Buffering of Neuroendocrine Stress Reactions: Potential Effects on the Developing Human Brain." *Preventive Medicine* 27: 208-211.

Harms, T. and Clifford, R.M. (1980). *Early Childhood Environment Rating Scale.* New York: Teachers College Press.

Harms, T. and Clifford, R.M. (1983). "Assessing Preschool Environments with the *Early Childhood Environment Rating Scale." Studies in Educational Evaluation* 8: 261-269.

Harms, T. and Clifford, R.M. (1990). *Infant/Toddler Environment Rating Scale.* New York: Teachers College Press.

Harms, T., Clifford, R.M. and Cryer, D. (1998). *Early Childhood Environment Rating Scale. Revised edition.* New York: Teachers College Press.

Helburn, S.W., ed. (1995). *Cost, Quality and Child Outcomes in Child Care Centers.* Denver, CO: Department of Economics, Center for Research and Social Policy, University of Colorado at Denver.

Hofferth, S.L. (1991). *National Child Care Survey, 1990.* Washington, DC: National Association for the Education of Young Children.

Holloway, S.D. and Reichhart-Erikson, M. (1988). "The Relationship of Day Care Quality to Children's Free-Play Behavior and Social Problem-Solving Skills." *Early Childhood Research Quarterly* 3: 39-53.

Horn, W.F. and Packard, T. (1985). "Early Identification of Learning Problems: A Meta-Analysis." *Journal of Educational Psychology* 77: 597-607.

Hosmer, D.W. and Lemeshow, S. (1989). *Applied Logistic Regression.* New York: Wiley.

Howes, C. (1983). "Caregiver Behavior in Center and Family Child Care." *Journal of Applied Developmental Psychology* 4: 99-107.

Howes, C. (1988). "Relations Between Early Child Care and Schooling." *Developmental Psychology* 24: 53-57.

Howes, C. (1990). "Can the Age of Entry into Child Care and the Quality of Child Care Predict Adjustment in Kindergarten?" *Developmental Psychology* 26: 292-303.

Howes, C. (1997). "Children's Experiences in Center-Based Child Care as a Function of Teacher Background and Adult:Child Ratio." *Merrill-Palmer Quarterly* 43: 404-425.

Howes, C., and Galinsky, E. (1995). "Accreditation of Johnson & Johnson's Child Development Center." In S. Bredekamp and B.A. Willer, eds., *NAEYC Accreditation: A Decade of Learning and the Years Ahead,* pp. 47-60. Washington, DC: National Association for the Education of Young Children.

Howes, C. and Hamilton, C.E. (1992). "Children's Relationships with Child Care Teachers: Stability and Concordance with Parental Attachments." *Child Development* 63: 867-878.

Howes, C., Rodning, C., Galluzzo, D.C. and Myers, L. (1988). "Attachment and Child Care: Relationships with Mother and Caregiver." *Early Childhood Research Quarterly* 3: 403-416.

Howes, C. and Rubenstein, J. (1985). "Determinants of Toddlers' Experience in Day Care: Age of Entry and Quality of Setting." *Child Care Quarterly* 14: 140-151.

Howes, C. and Smith, E.W. (1995). "Relations Among Child Care Quality, Teacher Behavior, Children's Play Activities, Emotional Security, and Cognitive Activity in Child Care." *Early Childhood Research Quarterly* 10: 381-404.

Hunter, T. (1995). "Quality Assessment of Early Childhood Programs Demonstration Project." Final Report. Victoria, BC: Unit for Child Care Research, School of Youth and Child Care, University of Victoria.

Jacobs, E.V., Selig, G. and White, D.R. (1992). "Classroom Behaviour in Grade One: Does the Quality of Preschool Day Care Experience Make a Difference?" *Canadian Journal of Research in Early Childhood Education* 3: 89-100.

Jenson, J. and Stroick, S.M. (1999). *A Policy Blueprint for Canada's Children.* Ottawa: Canadian Policy Research Networks Inc.

Jorde-Bloom, P. (1989). *The Illinois Directors' Study.* Report Submitted to the Illinois Department of Children and Family Services. Evanston, IL: National College of Education. ED 305 167.

Jorde-Bloom, P. and Sheerer, M. (1992). "Changing Organizations by Changing Individuals: A Model for Leadership Training." *The Urban Review* 24: 263-286.

Kent, T. (1999). *Social Policy 2000: An Agenda.* Ottawa: Caledon Institute of Social Policy.

Kleinbaum, D.G. (1998). *Applied Regression Analysis and Other Multivariable Methods.* 3d ed. Pacific Grove, CA: Duxbury Press.

Kontos, S. (1988). "Development and the Interrelationships of Reading Knowledge and Skills During Kindergarten and First Grade." *Reading Research and Instruction* 27: 13-28.

Kontos, S. and Stremmel, A.J. (1988). "Caregiver's Perceptions of Working Conditions in a Child Care Environment." *Early Childhood Research Quarterly* 3: 77-90.

Lipps, G. and Yiptong-Avila, A. (1999). *From Home to School: How Canadian Children Cope.* Ottawa: Statistics Canada. Cat. 89F0117XIE.

Love, J.M. (1993). "Does Children's Behavior Reflect Day Care Classroom Quality?" Paper presented at the Biennial Meeting of the Society for Research in Child Development, New Orleans, LA, March 25-28. ED 356 085.

Lyon, M. and Canning, P. (1995). *The Atlantic Day Care Study.* St. John's, Nfld: Memorial University of Newfoundland.

McBride-King, J.L. (1990). *Work and Family: Employment Challenges of the 1990s.* Report no. 59-90. Ottawa: Conference Board of Canada.

McCartney, K., Scarr, S., Phillips, D., Grajek, S. and Schwartz, J.C. (1982). "Environmental Differences Among Day Care Centers and Their Effects on Children's Development." In E.F. Zigler and G.W. Gordon, eds., *Day Care Scientific and Social Policy Issues,* pp. 126-151. Boston, MA: Auburn.

McCartney, K., Scarr, S., Rocheleau, A., Phillips, D., Abbott-Shim, M., Eisenberg, M., Rosenthal, S. and Ruh, J. (1997). "Teacher-Child Interaction and Child-Care Auspices as Predictors of Social Outcomes in Infants, Toddlers and Preschoolers." *Merrill-Palmer Quarterly* 43: 426-450.

Meyers, M. (1993). "Child Care in Jobs Employment and Training Programs: What Difference Does Quality Make?" *Journal of Marriage and the Family* 55: 767-783.

Mill, D., and Romano-White, D. (1999). "Correlates of Affectionate and Angry Behavior in Child Care Educators of Preschool-Aged Children." *Early Childhood Research Quarterly* 14: 155-178.

Miller, L.G., and Bizzell, R.P. (1983). "Long-Term Effects of Four Preschool Programs: Sixth, Seventh and Eighth Grades." *Child Development* 54: 727-741.

National Academy of Early Childhood Programs. (1984). *Criteria for High Quality Early Childhood Programs with Interpretations.* Washington, DC: National Association for the Education of Young Children.

National Council of Welfare. (1999). *Preschool Children: Promises to Keep.* Ottawa: Author.

National Crime Prevention Council. (1996). *It Takes a Whole Community to Prevent Youth Crime.* Ottawa: Author.

National Forum on Health. (1997). *Canada Health Action: Building on the Legacy*. Ottawa: Author.

NICHD (National Institute of Child Health and Human Development) Early Child Care Research Network. (1994). "Child Care and Child Development: The NICHD Study of Early Child Care." In S.L. Friedman and H.C. Haywood, eds., *Developmental Follow-Up: Concepts, Domains and Methods,* pp. 377-396. San Diego, CA: Academic Press.

NICHD Early Child Care Research Network. (1996). "Characteristics of Infant Child Care: Factors Contributing to Positive Caregiving." *Early Childhood Research Quarterly* 11: 269-306.

Osborn, A.F. and Milbank, J.F. (1987). *The Effects of Early Education: A Report from the Child Health and Education Study.* Oxford: Clarendon Press.

Palys, T. (1997). *Research Decisions: Quantitative and Qualitative Perspectives.* Toronto: Harcourt Brace Canada.

Peisner-Feinberg, E.S. and Burchinal, M.R. (1997). "Relations Between Preschool Children's Child-Care Experiences and Concurrent Development: The Cost, Quality, and Outcomes Study." *Merrill-Palmer Quarterly* 43: 451-477.

Peisner-Feinberg, E.S., Burchinal, M.R., Clifford, R.M., Culkin, M.L., Howes, C. and Kagan, S.L. (1999). *The Children of the Cost, Quality and Outcomes Study Go To School.* Executive Summary. Chapel Hill, NC: Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill.

Phillips, D., Howes, C. and Whitebook, M. (1991). "Child Care As an Adult Work Environment." *Journal of Social Issues* 47: 49-70.

Phillips, D., Howes, C. and Whitebook, M. (1992a). "The Social Policy Context of Child Care: Effects on Quality." *American Journal of Community Psychology* 20: 25-51.

Phillips, D., Howes, C. and Whitebook, M. (1992b). "Thresholds of Quality: Implications for the Social Development of Children in Center-Based Child Care." *Child Development* 63: 449-460.

Phillips, D., McCartney, K. and Scarr, S. (1987). "Child-Care Quality and Children's Social Development." *Developmental Psychology* 23: 537-543.

Phillipsen, L.C., Burchinal, M.R., Howes, C. and Cryer, D. (1997). "The Prediction of Process Quality from Structural Features of Child Care." *Early Childhood Research Quarterly* 12: 281-303.

Richardson, C. and Marx, E. (1989). *A Welcome for Every Child: How France Achieves Quality in Child Care: Practical Ideas for the United States.* New York: French-American Foundation.

Ross, C. and Paulsell, D. (1998). "Sustaining Employment among Low-Income Parents: The Role of Quality in Child Care: A Research Review." Final Report. Princeton, NJ: Mathematica Policy Research.

Ross, D.P., Scott, K. and Kelly, M. (1996). *Child Poverty: What Are the Consequences?* Ottawa: Canadian Council on Social Development.

Ruopp, R., Travers, J., Glantz, F. and Coelen, C. (1979). *Children at the Center.* Final Report of the National Day Care Study. Cambridge, MA: Abt Associates.

Scarr, S., Eisenberg, M. and Deater-Deckard, K. (1994). "Measurement of Quality in Child Care Centers." *Early Childhood Research Quarterly* 9: 131-151.

Schliecker, E., White, D.R. and Jacobs, E. (1991). "The Role of Day Care Quality in the Prediction of Children's Vocabularly." *Canadian Journal of Behavioural Science* 35: 12-24.

Schweinhart, L.J., Weikart, D.P. and Larner, M.B. (1986). "Consequences of Three Preschool Curriculum Models Through Age 15." *Early Childhood Research Quarterly* 1: 15-35.

Tremblay, R.E., Masse, B., Perron, D., LeBlanc, M., Schwartzman, A.E. and Ledingham, J.E. (1992). "Early Disruptive Behavior, Poor School Achievement, Delinquent Behavior, and Delinquent Personality." *Journal of Consulting and Clinical Psychology* 60: 64-72.

Vandell, D.L. (1999). *Cognitive, Linguistic, and Social Consequences of Early Experience: Child Care and Social Competence: NICHD Study.* Paper presented at the American Association for the Advancement of Science meetings, Anaheim, CA, January 21-26.

Vandell, D.L., Henderson, V.K. and Wilson, K.S. (1988). "A Longitudinal Study of Children with Day-Care Experiences of Varying Quality." *Child Development* 59: 1286-1292.

Vandell, D.L. and Wolfe, B. (2000). *Child Care Quality: Does It Matter and Does It Need to be Improved?* Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services.

Wasson, J.H., Sox, H.C., Neff, R.K. and Goldman, L. (1985). "Clinical Prediction Rules: Applications and Methodological Standards." *New England Journal of Medecine* 313(13): 793-799.

White, D.R., Jacobs, E. and Schliecker, E. (1988). "Relationship of Day Care Environment Quality and Children's Social Behaviour." *Canadian Psychology* 29: Abstract No. 668.

Whitebook, M., Howes, C. and Phillips, D. (1990). *Who Cares? Child Care Teachers and Quality of Care in America.* Final Report of the National Child Care Staffing Study. Oakland, CA: Child Care Employee Project.

Glossary

Abbreviations

CIS	*Caregiver Interaction Scale*
CQO	*Cost, Quality and Child Outcomes in Child Care Centres* study
ECCE	Early Childhood Care and Education
ECERS	*Early Childhood Environment Rating Scale*
ECERS–R	*Early Childhood Environment Rating Scale–Revised*
ITERS	*Infant/Toddler Environment Rating Scale*
NAEYC	National Association for the Education of Young Children (U.S.)
NICHD	National Institute of Child Health and Human Development (U.S.)
NLSCY	National Longitudinal Survey of Children and Youth (Canada)
SD	Standard deviation

Terms

Assistant teacher: A person who works with children under the direction of another teacher.

Correlation: The extent to which there is an association between two things; for example, teacher level of ECCE education and score obtained on the *Early Childhood Environment Rating Scale.*

Developmentally appropriate activities: Activities that are appropriate for the child's developmental level.

Detachment: Adult behaviour characterized by lack of involvement with the children; for example, passively watching them instead of being actively engaged with them.

Dichotomous: Two distinctly different groups.

Harshness: Adult behaviour towards or with children that is critical, threatening or punitive; for example, scolding children.

Inter-rater agreement: The strength of agreement in the scores of two people who are assessing the same classroom at the same time using the same instrument; for example, the *Early Childhood Environment Rating Scale.* High levels of inter-rater agreement indicate that with appropriate training different people will rate the same situation in the same way. This is important when needing consistency of rating by a number of different people.

Mean: What is commonly known as the average.

Median: The point at which an equal number of cases fall above and below a specified value.

Responsiveness: Care provider behaviour that is characterized by reacting promptly and appropriately to a child's verbal or non-verbal signals for attention. It includes having expectations that are appropriate to the child's developmental level and being sensitive to the child's mood.

Sensitivity: Care provider behaviour that is warm, attentive and engaged with the children.

Significant or significance: A statistical term identifying the extent to which a relationship between two items — for example, between teacher responsiveness and child language development — is likely to have occurred by chance.

Site coordinator: The Project staff person in each province or territory who was responsible for contacting and recruiting child care centres, sending out questionnaires, and scheduling site visits by the observers.

Supervisor: A person who has primary responsibility for a group of children and also has supervisory responsibility for teachers.

Standard deviation: A measure of the extent of variability among scores. A high standard deviation indicates considerable variation from the mean (average) in both directions.

Teacher: A person who has primary responsibility for a group of children. This person may also have supervisory responsibility for assistant teachers.

Notes