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INTRODUCTION

During the past ten or fifteen years, there has been considerable discussion about child care policy in Canada. As Canadian child care policy discussion has broadened and evolved, it is evident that there are many points where this discussion could be strengthened by relevant research. Too often, however, the appropriate research has not been conducted. If research is available, it has often has been carried out in other countries, usually the United States, where the settings, demographics or assumptions may be quite different than ours.

In recent years, it has become obvious that Canadian child care policy discussion would benefit if it were informed by a body of relevant Canadian research. It is gratifying to see that this body of research has begun to accumulate. Further, the research is appropriately multidisciplinary, using a range of methodologies - psychology and child development, sociology, anthropology, economics, medicine and political science.

It is within this context that the ***Child Care Policy & Research Symposium*** was organized. It brought together researchers, policy makers, advocates and child care practitioners to consider information relevent to child care policy which was available from several disciplines and how it could be applied to developing child care policy. The Symposium's goals were not only to stimulate discussion among researchers and policy makers and researchers from different disciplines but to underline the importance of conducting Canadian child care research and making it widely available.

The Symposium was a first Canadian multidisciplinary effort of this nature; it is hoped, and assumed, that it won't be the last.

Please note: The session on The Canadian National Child Care Study which was presented at the ***Child Care Policy & Research Symposium*** is not represented by a paper in these proceedings. Instead, the reader is referred to several other publications which provide similar and expanded material. All are available from Statistics Canada.

- *Introductory report*. (1992). Canadian National Child Care Study.

- *Parental work patterns and child care needs*. (1992). Canadian National Child Care Study.
- *Where are the children? An overview of child care arrangements in Canada*. (1992). Canadian National Child Care Study.

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THE IMPLICATIONS OF EARLY CHILDHOOD EDUCATION AND PSYCHOLOGICAL RESEARCH FOR CANADIAN PUBLIC POLICY ON DAY CARE

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ABSTRACT

Current research in early childhood education and developmental psychology is discussed in the light of implications for Canadian public policy on child care. From the early childhood education perspective, emphasis is placed on research examining the impact of the quality of the child care environment on children's development. As Phillips and Howes (1987) outline, quality has been investigated from three viewpoints: (a) globally (overall climate of program), (b) specific dimensions and (c) in relation to the joint effects of child care and family environment. The majority of research has concentrated on the specific dimensions of child care quality, that is, the structural or regulatable features (e.g., teacher/child ratios, group size, staff training). The specific dimensions are easy to regulate and measure, which may explain why the majority of recent research from the early childhood perspective has focused on these aspects of quality. Recent psychological research has examined the immediate and long-term effects of child care attendance on children's social/emotional, cognitive, and language development. Some studies have included environmental quality as an independent variable; however, the major focus has been on factors concerned with optimal child development.

The present paper attempts to integrate findings emanating from both the early childhood education and psychological perspectives and chart the implications for public policy for day care in Canada. Specific attention is focused on the Canadian context and how this may influence policy recommendations.

INTRODUCTION

Current research about day care from the early childhood education and developmental psychology perspectives is summarized and findings are related to Canadian public policy on child care. A review of the literature indicated that the majority of child care research has been conducted in the United States. We will argue that the specific cultural, social, linguistic, economic, and demographic characteristics of the Canadian situation must be taken into account when proposing policy.

From the early childhood education perspective, the focus will be on research examining the impact of the quality of the child care environment on children's development. As Phillips and Howes (1987) outline, quality has been investigated from three viewpoints: (1) in a global manner to assess the overall climate of the program, (2) from a structural dimensions perspective on quality, and (3) in relation to the joint effects of child care and family environment. The majority of the research on child care quality has examined the impact of specific variables

because these variables were regulatable and, therefore, easy to measure; currently, there is an increased use of both regulatable and global measures by researchers.

Research investigating the effects of child care attendance on children's social/emotional, cognitive, language and physical development will be discussed. While measures of the quality of the child care environment are frequently included, the main focus of psychological research has been on issues concerned with optimal child development.

By necessity, this literature review is not exhaustive, but rather, will attempt to highlight the major patterns of findings as they pertain to our question. Although recent interest in the effects of infant day care has been prominent in the literature, especially with reference to early mother-infant attachment (e.g., Belsky, 1986; Phillips, McCartney, Scarr & Howes, 1987), the present paper will be confined to a discussion of preschool-aged children in group care situations. In addition, a few references to the limited research on family day care are included.

EARLY CHILDHOOD EDUCATION RESEARCH ON CHILD CARE

The major focus of the early childhood education literature has been on how the quality of the child care environment influences child development. Quality has been investigated from three perspectives (Phillips & Howes, 1987). Each will be briefly addressed.

Quality as a global dimension

The quality of the child care environment can be defined in global terms (Phillips, 1987) as the total environment the child experiences on a regular basis; it includes tone, atmosphere, care and attention, programming and adult supervision of children. Harms and Clifford's (1980) frequently employed environmental rating scale provides a quantitative measure of these qualitative aspects of the environment. Harms and Clifford (1980) reported that American centres they studied received ratings across the full range of the scale from inadequate to excellent. However, Canadian research projects utilizing the Harms and Clifford measure did not find centres in the inadequate range, which may have been due to higher licensing standards established by provincial departments responsible for child care (Schleicker, White & Jacobs, 1991).

Regulatable or specific dimensions of quality

Regulatable variables include adult-child ratios, group size, number of children per centre and caregiver training. These variables can be measured directly without undergoing transformations to arrive at numerical representations of quality, and as such, they are more concrete than the global characteristics. Consequently, these variables can be measured and controlled more easily. Regulatable variables can be viewed as the structural components of quality because they are the building blocks of a quality child care centre. Without a high adult-child ratio, small group size, experienced, well-educated and trained caregivers, the atmosphere, tone, supervision and programming observed in a child care centre is affected.

All of the regulatable variables have been related to child development outcomes. However, group size and specialized caregiver training appear to be the strongest predictors of positive classroom interactions, verbal communication skills, cooperative behaviour and cognitive abilities (Field, 1980; Howes & Rubenstein, 1985; Ruopp, Travers, Glantz & Coelen, 1979; Smith & Connolly, 1981). More recently, researchers have included both global and regulatable variables to give quality a broader definition (Vandell & Powers, 1983; Phillips, McCartney, & Scarr, 1987).

In conclusion, in child care centres, the environment which is created through the interplay of regulatable and global characteristics has been shown to predict children's development.

Joint effects of child care and the family environment

Recent research has focused on the joint effects of child care experience and the family environment on child development. As Phillips and Howes (1987) argue, childrearing has become a "collaborative endeavour" between the home and child care setting. One implication of this argument is that researchers need to consider both the impact of the child care experience and family variables, rather than considering only one set of variables. Howes and Olenick (1986) also reported that American families using low quality child care had more complicated and stressful lives than families using higher quality care.

At least two recent Canadian studies indicate that parental choices about child care arrangements are important factors. Pence and Goelman (1987) reported that parents choosing centre-based care preferred this type of arrangement and were concerned with the quality of the program, compared to parents who preferred family day care and were more concerned with caregiver characteristics. Thus, parents who chose centre-based care may be a different population than parents who select other types of care arrangements. White, Parent, Chang and Spindler (in press) identified two types of important criteria for selecting day care: parental or logistical needs (e.g., cost, convenient hours, location) and child oriented/program needs (e.g., trained caregivers, quality of setting). Parents opting for low quality care presented practical and economic considerations as paramount.

Clearly, family variables must be accounted for in interaction with child care variables. Otherwise research may overestimate the effects of the child care experience per se on children's development (Phillips & Howes, 1987). In fact, a number of researchers (e.g., Clarke-Stewart, 1984; Clarke-Stewart & Gruber, 1984; Goelman & Pence, 1986, 1987; Howes & Olenick, 1986; Kontos, 1987; Kontos & Feine, 1987) have found that when family variables are considered, associations between the child care environment and child development are often moderated. However, findings from the Bermuda study (McCartney, 1984; Phillips, McCartney & Scarr, 1987) indicate that the influence of the child care environment was important even after family variables were accounted for.

Intuitively and conceptually, we need to consider the joint contribution of both family and child care variables on child development. As Bronfenbrenner (1979) argues, to understand child development we should chart the ecology of the child's world, that is, we need to examine influences of both the immediate family and the child's broader social context, such as the child care environment.

PSYCHOLOGICAL RESEARCH ON CHILD CARE

The majority of the psychological literature has focused on social/emotional development with less attention to cognitive, language and physical development.

Social/emotional development and child care

The current literature on the relationship between child care attendance and social behaviour has examined a broad range of behaviours. Day care attendance has been related to increased aggressiveness (Schwarz, Strickland, & Krolick, 1974), more positive peer interactions (Vlietstra, 1981), less attentiveness and social responsibility (Schwarz et al., 1981) but also to more advanced perspective-taking skills, more cooperative behaviour and more confidence in social interactions (Clarke-Stewart, 1984; Howes & Olenick, 1986; Ramey, MacPhee & Yeates, 1982; Rubenstein & Howes, 1979).

When quality of day care is included as an independent variable, children attending high quality centres have been rated as more confident in their social interactions, more cooperative, sociable, less dependent and as engaging in less negative play than children in low quality centres (Howes & Olenick, 1986; McCartney, Scarr, Phillips, Grajek, & Schwarz, 1982; White, Jacobs, & Schliecker, 1988). However, even when the quality of the centre was considered, Bjorkman, Poteat and Snow (1986) did not find a relationship between social interactions and quality of the day care centre.

Although the immediate effects of day care attendance are of concern, longitudinal findings have also interested researchers. Gunnarsson (1978) studied two groups of five year olds: home-reared children and those who had been in day care since their first birthday. He found greater adult-child cooperation in day care children, more peer conflicts in home-reared children and no group differences in compliance with adult authority. Haskins (1985) followed children with varying amounts and types of day care experience during the first three years of public school. Initially, children who had attended a cognitively-oriented day care program since infancy were rated as more aggressive than those who had attended another form of day care. However, the aggressive behaviour of these children diminished within the first three years of public school attendance. Andersson's (1989) study of Swedish eight-year-olds with prior day care experience indicated that age of entry was related to socio-emotional variables. Children who entered day care as infants were rated as more persistent, independent, less anxious and had fewer problems making the adjustment from preschool to school compared to children with no prior day care experience.

Some longitudinal studies have included measures of quality of child care. Howes (1990) reported children with low quality infant care had the most difficulty with peers as preschoolers and, in kindergarten, were rated as more distractible, less task-oriented and more hostile. Jacobs and White (in press) examined the relationship between child care quality, play styles and social behaviour and found that children who had attended either high or low quality centres were rated higher by their kindergarten teachers on measures of interest and participation than the children with no preschool experience. Within the day care group, more frequent negative play behaviours in the day care setting were related to less interest and participation in the kindergarten classroom. Vandell, Henderson and Wilson (1988) reported that children attending

good quality day care centres were rated as having more friendly interactions and fewer unfriendly interactions with peers, were more socially competent, happier, and received fewer shy nominations from peers than children attending low quality centres. Furthermore, positive interactions with adults at age four were positively related to empathy, social competence, and peer acceptance at age eight. In conclusion, these studies indicate that some of the positive and negative effects between quality of care and social development are long-lasting (Howes, 1990; Vandell, Henderson & Wilson, 1989).

Cognitive development and child care

The majority of research examining the impact of child care experiences on cognitive development has focused on intellectual development, and, more specifically, on children's performance on standardized IQ tests. In 1978, Belsky and Steinberg reviewed the existing literature on the effects of day care and concluded that for middle class children attending a high quality child care centre had either no effect or had positive effects on their IQ's. Belsky and Steinberg (1978) also concluded that for low SES, high-risk children, day care experience may ameliorate or compensate for declines in intellectual development that have sometimes been reported around age two. In general, since 1978, further evidence suggests that the intellectual development of middle class children in good quality centres is comparable to home reared children (Clarke-Stewart, 1982) or may even be enhanced (Clarke-Stewart, 1984; 1987) in comparison to home-reared children; the intellectual development of low income children is generally facilitated by high quality care (e.g., Golden, Rosenbluth, Grossi, Policare, Freeman, & Brownlee, 1978; McCartney, Scarr, Phillips, & Grajeck, 1985; Ramey, Dorval, & Baker-Ward, 1983). However, Kontos & Fiene (1987) reported no associations when family background and child care history variables were taken into account. The results from two Canadian studies employing low SES samples were more mixed (Fowler, 1978; Wright, 1983), however methodological problems may have accounted for their findings (Doherty, 1990).

Specific aspects of teacher behaviour may be associated with enhancing children's cognitive development; that is, teachers who are highly responsive, exhibit high levels of positive interaction, provide informative verbal information, are not harsh or controlling in their discipline techniques and are attached to the children appear to enhance children's cognitive development (Anderson, Nagle, Roberts, & Smith, 1981; Carew, 1980; Clarke-Stewart, 1987, 1989; Rubenstein & Howes, 1983). Moreover, teacher curriculum programming (i.e., having organized activities and routines) also appears to facilitate children's cognitive development (Clarke-Stewart & Gruber, 1984; Goelman & Pence, 1987; Smith & Connolly, 1986). Finally, regulatable variables such as smaller group sizes, low staff turnover, and better trained teachers who are knowledgeable about child development are associated with scores on various measures of cognitive development (Clarke-Stewart, 1987; Goelman & Pence, 1987; Kontos & Feine, 1987).

Recent longitudinal work suggests that early care experiences enhance children's intellectual or at least school-related skills. Weikart and his associates (Berrueta-Clement, Schweinhart, Barnett, Epstein, & Weikart, 1984) have reported that low SES children with child care experiences were less likely to repeat school grades, to be tracked into special education classes, were more likely to complete high school and go on for further vocational or academic training compared to children without early care experiences.

In conclusion, while the majority of research suggests day care attendance is associated with positive outcomes for children's cognitive development, researchers need to view the domain from a wider conceptual orientation and include measures besides standardized tests of intellectual development (e.g., tasks of memory, social problem-solving, logical reasoning).

Language development and child care

Interestingly, two early and frequently cited literature reviews (Belsky & Steinberg, 1978; Clarke-Stewart & Fein, 1983) either do not or only briefly address research investigating the association between child care experience and children's language development. Nevertheless, as McCartney (1984) argues, child care experiences may have an impact on language development because the structure of the child care environment differs from the home in a number of ways, especially in regard to the adult-child ratio. Moreover, there is literature suggesting that adults are important in facilitating children's early language development (McCartney, 1984). In child care, children have fewer opportunities to interact verbally with adults, although certainly greater peer interactions are possible. In a study of Bermudian children, McCartney (1984) reported that the quality of the day care environment was a strong predictor of children's language development, after controlling for family variables and centre experience. In centres where teachers and children communicated frequently, children performed better on language tests than children from centres with high levels of peer speech (and presumably less teacher-child interaction).

At least two recent major studies report that children attending centre-based care perform better on language measures than children in other types of care arrangements (Goelman & Pence, 1987; Clarke-Stewart, 1987), Ackerman-Ross and Khanna (1989) however, found that day care and home-reared children did not differ on measures of language performance. Positive correlations between attending high quality child care and children's language performance have been documented (Kontos & Fiene, 1987; Phillips, Scarr & MacCartney, 1987; Schliecker, White & Jacobs, 1991). Although, Goelman and Pence (1987) found no association between measures of language performance and quality of care, the restricted range of the quality of the centres in their study may have influenced the results.

Clarke-Stewart (1987) observed that certain teacher characteristics (e.g., age, more experience, better training) as well as teacher behaviours (e.g., reading, offering choices) were positively related to children's performance on language tests, while other teacher behaviours were negatively related (e.g., hugging, holding, helping and other types of controlling actions). Other researchers have reported similar positive associations between children's language performance and caregiver experience (Kontos & Feine, 1987), caregiver stability (Clarke-Stewart, 1987; Kontos & Feine, 1987), caregiver education and training (Clarke-Stewart, 1987), and small group size (Kontos & Feine, 1987).

In conclusion, a preliminary review of the literature suggests that high quality centre care may facilitate children's language development.

Physical development and child care

Virtually no research has been conducted on this topic with preschoolers attending group care and for the sake of brevity, the literature on infant physical development and child care will not be included.

THE CANADIAN CONTEXT

The majority of studies reviewed here have been conducted in the United States and to generalize the findings to the Canadian population would be ill-advised due to significant differences that exist between the two countries. We argue that specific factors differentiate the Canadian from the American context and must be taken into consideration when addressing policy on child care.

First, federal and provincial government policies and programs offer support for large segments of the population: for example, universal health care and maternity leave, Family Allowance, social assistance and child care subsidies. These programs allow a larger portion of the population to be included in the social development package than in the United States. Second, there are higher standards for licensing regulations for child care in many provinces across the country than in the United States. This appears to have had a positive effect on the quality of care available for some Canadian children. Third, Canada has never been a melting pot for recently arrived immigrants. Thus, the cultural mosaic has helped to determine the direction of many social policies; for example, the federal policy on multiculturalism has had an effect on child care policies and programs. Fourth, Canada's social orientation has had an economic impact on child care, with some provincial governments indicating a preference for non-profit over for-profit child care centres. This policy has been implemented through governmental procedures that determine which centres will receive preference in funding. Fifth, in terms of Canadian demographics, the size and distribution of the Canadian population is quite different from the American situation; the majority of the population inhabits a narrow corridor along the Canadian-American border and much of Canada is very sparsely populated. Sixth, federal government policy has been affected by the issue of language.

In conclusion, American research results must be given due consideration, however, they must be tempered in light of the above mentioned factors which have ramifications for Canadian public policy on child care. Some of these implications for public policy on child care are outlined below.

POLICY IMPLICATIONS

1. Generally, Canada's approach to social welfare has had more universal orientation than has the United States, with government playing a larger role. Support from government should be forthcoming to strengthen regulations which ensure high quality care for all children. Stringent and universal licensing guidelines reflecting developmentally appropriate early childhood philosophies should be considered along with relevant research findings. Existing

centres would have to meet these requirements and new centres should conform in order to be granted an operating license. We recommend government funding for a federal child care bureau that would be a clearing-house for research findings and would disseminate information to provincial governments to aid in the establishment of licensing and regulating procedures for all child care centres. Regulations should focus on promoting quality as defined globally and include specific structural variables which in turn will facilitate healthy social/emotional, cognitive, language and physical development in young children. The regulations should be specific to each province and should be strongly influenced by population demographics.

2. High quality child care is expensive. High adult-child ratios are costly, but essential for the provision of appropriate levels of caregiving and the provision of developmentally appropriate activities (Whitebook, Howes, & Phillips, 1990), for caregiver sensitivity and responsiveness to children (Howes, 1983; Howes & Rubenstein, 1985; Whitebook et al., 1990) and for positive adult-child social, verbal and cognitive interactions (Biemiller, Avis, & Lindsay, 1976; Howes, 1983). Although small group size is expensive to finance, a number of studies indicate that this variable is one of the most powerful predictors of positive classroom functioning and child development outcomes (Ruopp et al., 1979; Holloway & Reichhart-Erickson, 1988; Howes, 1983; Howes & Rubenstein, 1985; Smith & Connolly, 1986). Specialized caregiver training which requires payment of higher salaries is related to a cluster of positive adult behaviours and optimal child development (Arnett, 1987; Clarke-Stewart & Gruber, 1984; Howes, 1983; Ruopp et al., 1979). If these requirements for high quality care are satisfied, the cost of operating child care centres will be expensive, therefore, government funding to child care is essential and should be as automatic as the Family Allowance program.

3. Meeting the needs of Canadian families requires diverse child care arrangements. Under the Unemployment Insurance Act, new mothers are entitled to a maximum leave at up to 60% of salary for 16 weeks. A recent option for either parent is an additional ten weeks of leave at a reduced salary. Job permanence is not as critical an issue in Canada as it is in the United States (Thorman, 1989); consequently, *early* infant care is not a necessity. However, infant care does become essential at about three months of age and the majority of spaces for infants are now found in family day care. Consequently, family day care should be licensed and carefully regulated by the proposed child care bureau. Canadian families whose children are beyond infancy may require alternative care options such as full or part-time centre care, on-site employer-sponsored care, rural day care, after-school care, short-term or long-term care for sick children, evening or night-time care for children of shift workers, and care for disabled children. Therefore, caregiver training in early childhood education programs must prepare child care staff to function successfully within a wide range of settings.

4. The Canadian mosaic requires the design of child care services which are sensitive to the language and cultural differences of immigrant and native groups (Mock, 1988). Language can be a barrier to procuring day care, as well as in a situation where a parent has to place one's child in a centre where caregivers do not understand the child's maternal tongue and culture. At least two approaches are required. First, caregiver training programs must

respond to the cultural diversity of the Canadian population; second, the federal government should take initiative in this endeavour and set up model centres across the country.

5. Caring for Canadian children is big business for some entrepreneurs. In order to be successful operating a child care centre as a money-making venture, the profit margin must be large. Research indicates that the quality of child care is generally higher in non-profit than for-profit centres (Whitebook, Howes, & Phillips, 1989). Moreover, staff in non-profit centres are paid higher wages and report greater job satisfaction than caregivers in for-profit centres both in the United States and Canada (Schom-Moffat, 1986; Whitebook et al., 1989). Therefore, provincial governments should support the licensing of more non-profit centres and also provide them with start-up funds. Unfortunately, many governments are caught in the double bind of wishing to increase the number of child care spaces but find that they must permit the operation of both types of centres in order to do so.

6. Governments must be willing to provide extra funding for child care in the smaller population centres that extend beyond the concentrated settlement along the Canadian-American border. Although the development of child care centres in less densely populated areas can be more expensive, they can serve the dual purpose of providing care for children, as well as making it possible for families to increase their incomes and become more self-reliant and self-supporting. This necessitates the development of training programs specializing in early childhood education for indigenous and rural populations.

7. The federal government's official bilingualism policy dictates that services should be available in both official languages where numbers warrant. However, in reality, parents have experienced difficulty finding French language child care outside of Quebec and New Brunswick (Mock, 1988). There has been heavy government support for French immersion programs in elementary schools across Canada and we know that there is less resistance to the learning of a new language at young ages. Perhaps the provision of bilingual child care centres would enhance the development of a comfortably bilingual nation. This would require official support from federal and provincial governments through a variety of subsidies and the provision of developmentally appropriate learning materials.

CONCLUSION

The issue of the relationship of child care attendance to child development is being investigated both in the United States and Canada. The results of the studies in the two countries must be given due consideration, however the application of the results to the development of day care policies has to be viewed in light of the country in which the research has been conducted. Canada has a specific perspective which is influenced by its social development orientation and its multicultural heritage. This type of orientation must be the filter through which all research results flow before policies are proposed and/or instituted. This paper reflects that approach and might provide a good beginning for the development of policies appropriate to this nation.

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ECONOMICS AND CHILD CARE POLICY

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ABSTRACT

This paper seeks to answer four questions about economics and child care policy. First, what is economic research as it applies to child care? In other words, what conceptual framework and methods do economists use to analyze the economic aspects of child care and draw conclusions? Second, what has economic research discovered about child care? What are the accepted facts and theories about child care and which issues remain in dispute? Third, how does economics determine what a wise public policy towards child care would be? What criteria do economists use? Fourth, what is the economic rationale for existing policies? What role can further economic research play in resolving disputes over child care policy? This paper provides an overview of economic methodology, of recent economic research in child care, and of the approach of economists to child care policy.

INTRODUCTION

In the interdisciplinary discussion of child care policy organized at this special set of sessions at the Learned Societies meetings, it seems appropriate to cast my net wide. My purpose is to provide an introduction to economic thinking and economic research in child care, particularly as they relate to child care policy. My intended objective is to facilitate the understanding of economic perspectives particularly by those of you who come from other disciplines and who may be wary, but curious, about the approach and the results of economic research on child care.

QUESTION 1: WHAT IS ECONOMIC RESEARCH?

Economic research analyzes the behaviour of individuals as they engage in economic activities -- generally, as they participate in *markets* for various goods and services. A market exists wherever there is an organized exchange of goods and services, usually for money. So, economists concern themselves with the supply behaviour of individuals and businesses, and the demand behaviour of individuals and businesses, and with the economic results that are produced by the interaction of supply and demand in different markets.

With regards to child care, the main market of interest involves the purchase and sale of different types of child care services (e.g., child care in a day care centre, in a neighbourhood home, by a nanny in the child's home, by a relative in the immediate or extended family, full day or half day kindergarten, etc.). Families will choose one, or a combination of these different types of care for their children, or parents will provide care themselves. The factors which affect this choice will be analyzed in looking at the demand for child care; the factors which affect how much of which types of care are available, at what quality and at what price, will also be analyzed in looking at the supply of child care services.

Two other markets are closely related to the market for child care; the market (or set of markets) for women's labour, particularly for mothers of young children, and the market for the services of child care workers or child care providers. When mothers decide to supply their labour services to the market (i.e., to take a job) they simultaneously decide to use some kind of child care (to demand child care). Therefore, the characteristics of the child care market (price, convenience, quality) can and generally will affect mothers' decisions to return to work (to supply labour). And the demand for different types of child care is what creates the derived demand for the labour services of different kinds of child care workers, whether trained or untrained, in a day care centre or in a home.

Economic research can be thought of as a two stage process. First, economists develop stories or theories to explain what they think happens in each one of these markets: a story about the factors affecting the demand behaviour of consumers, the supply behaviour of sellers, and about the way the market works to produce certain economic outcomes. Second, economists try to submit these stories to various kinds of logical and empirical tests to determine whether the story provides a credible explanation of what we observe happening. In fact, there is really another stage that intervenes between these two research stages, that is, turning the stories about demand, supply and their interaction into explicit models of each of these processes. These models are generally very simplified, often mathematically expressed descriptions of the essential elements of the story of how this particular market functions. These models embody the main economic hypotheses which can be subjected to empirical testing.

In economic models, the behaviour of child care users or potential child care users is summarized in the demand for child care services. Day care centres, licensed and unlicensed family day care providers, and nannies are considered to be alternative sources of market child care services. Many families also have available various non-market forms of child care, such as the father, the mother while at work, and care by other relatives. These different sources and the conditions under which they are provided make up the supply of child care services. Demand and supply are each influenced by a host of distinct economic factors; the result of their interaction is the price paid by the consumer of child care and the decisions of families to use care of a particular type and quality. To get ahead of our story a bit, government child care policy is necessary when these markets, for one reason or another, are not working well.

The other markets related to the market for child care services are analyzed in a similar way. For instance, the supply of labour services of mothers to the market is expected to be affected strongly by the price and other attributes of available child care services. Likewise, we can consider the supply of and demand for the services of child care workers, whether trained workers for day care centres or untrained sitters willing to provide care in their homes. In each case, economic research consists of theoretically and empirically analyzing the characteristics and determinants of the demand for the particular product or service in question, the characteristics and determinants of supply behaviour, and the functioning of the market which establishes some type of equilibrium results (such as price, quality, prevailing cost structures, some suppliers going out of business while others earn a handsome profit, some demanders deciding that the price of available care is too high to afford while others are very pleased with the child care received, and so on).

QUESTION 2: WHAT DOES ECONOMIC RESEARCH TELL US?

The short answer to the above question is: Economic research tells us quite a lot about the demand for different types of child care and about the link between women's labour force participation and the price of child care; much less about the supply of different types of child care, about the structure and functioning of the market for child care services, or about the demand and supply for the services of child care workers. Even where we do know quite a bit (i.e., about the demand for child care and about mothers' labour force participation) most of the data and analysis is from the United States rather than Canada.

It is convenient, in trying to summarize the growing body of economic research on child care, to pose five central questions that a number of economists have addressed. I will then identify the relevant contributions made so far in answer to each question and briefly describe and evaluate the conclusions that have been reached.

1. How do the price, availability, and quality of child care affect mothers' decisions to engage in paid work?

2. What are the key factors which determine which type of child care will be used by families with working mothers, and what is the relative importance of these different factors?

3. Can more child care of different types be provided at current prices, or will prices necessarily rise as more child care is provided, and by how much?

4. Why are the wages of child care workers so low?

5. Do child care markets work relatively smoothly and well to provide the types and kind of child care that families are willing and able to purchase? Or, are there major impediments to the operation of supply and demand in the child care market?

There is a sixth area of significant economic research as well -- specific research on alternative kinds of government child care policy. An adequate review of these contributions is beyond the scope of this survey.

Child Care and Mothers' Decisions to Work

1. How does the price, availability, and quality of child care affect mothers' decisions to engage in paid work?

Various techniques can be used to get approximate answers to this question. Economists David Bloom and Todd Steen (in a paper for the Windscale Conference of the Child Care Action Campaign in January 1988) recorded survey answers about the hypothetical labour force intentions of mothers with preschool children in the U.S. In the June 1982 *Current Population Survey*, women with preschool children who were not in the labour force were asked whether they would look for work if child care were available to them at "reasonable cost". Just over one

quarter of these women responded in the affirmative; if true, this would raise participation rates of women with children under age 5 from 48.1% to 61.5%. The response was even stronger from never-married women with preschool children. In addition, 13% of those currently working indicated that they would work more hours if "reasonable priced child care were available". Bloom and Steen emphasized the inexact and unreliable nature of these hypothetical results but argued that even if the response to low cost child care were only half as large, it would be a very significant one.

Typically, the research techniques of economists are less direct than those used by Bloom and Steen (1989). Heckman (1974) was the first economist to develop a story and to model explicitly the demand for market and non-market types of child care and their relationship to the mother's decision to enter the paid labour force and to work a certain number of hours per week. Data was then used to statistically test the model. He used the 1966 wave of the National Longitudinal Survey with information on married women, 30-44 years of age, spouse present, and with at least one child under 10 years. Using strong assumptions to overcome the absence of explicit price data, he found the price of child care had a strongly significant effect on both the decision to work and the number of hours worked. Heckman's estimated cost of child care, it should be noted, allowed only for differences in the probability that families had access to cheap, informal care, but did not allow for other factors affecting expenditures, such as the number and age of children in the family and geographic location.

Blau and Robins (1988) used data from the 1980 *Employment Opportunity Pilot Projects* (E.O.P.P.) baseline survey to look at the labour force and child care choice behaviour of married women under age 45 with at least one child less than age 14. Using a logit choice model, they analyzed the factors affecting a family's choice between five distinct solutions to the labour force-child care puzzle (these solutions involved different combinations of the mother working or not working, a relative working or not working and providing child care, and the purchase of child care at market prices). Blau and Robins used the average per hour cost of child care in a particular geographic location as a measure of the market price of care facing each family. They found that higher child care costs had a significant negative effect on mother's employment and a positive impact on the probability of using informal care. Blau and Robins calculated that the probability that the average mother works is quite sensitive to the price of child care; if market child care were free, the average mother would have had an 87% probability of working. On the other hand, at $40 per week, the probability of her staying at work would have been only 19%.

In a different paper, Blau and Robins (1989) estimated hazard functions to measure the factors affecting the transitions made by individuals between employment and non-employment, and the birth of additional children. This paper, therefore, examined the effects of child care costs on fertility as well as on employment. Using the same data set as in their 1988 paper, and looking at the transition from employment to non-employment, Blau and Robins found an implied price elasticity[1] at the sample mean of 0.47; a $1.00 increase in weekly child care costs would cause the rate of leaving employment to rise by 2%. In contrast, an increase of $1.00 in child care credit on income tax, would reduce the rate of leaving employment by 0.4%. The elasticity of the effect of child care costs on the transition from non-employment was slightly larger, -0.77; in other words, a $1.00 increase in child care costs would reduce the rate of entry to employment by about 3%. Blau and Robins did not find any significant effect of child care costs on the fertility of employed women but for women not employed at the time of the survey, a $1.00 increase in child care costs led to a decline of 2% in the birth rate.

Connelly (1988b, 1989a) developed the model of mothers' labour market decision-making more fully, in words and algebraically. Her data came from the January-April 1985 wave of the 1984 *Panel of the Survey of Income and Program Participation* (SIPP), comprising married women from 21 to 55 years of age with children under 13. Connelly hypothesized that families first decide on an acceptable quality level for non-maternal child care; then the mother's potential wage, at work minus the expenditure per hour necessary to purchase child care of the desired quality, could be considered as the hourly benefit of being in the paid labour force. The mother weighed this net benefit against the benefits of caring for her children at home in making a decision whether or not to enter the paid labour force.

Connelly used a two-stage Tobit (corrected for selection) to calculate the expected child care expenditure level for all families, then included both expected child care expenditures and expected wages in a structural probit of the likelihood of participating in the labour force. Both the wage and the expected price of child care had a strongly significant effect on mothers' labour force participation, the former with a positive and the latter with a negative sign. Connelly's child care cost or expenditure equation was more complex than the equivalent for Heckman or Blau and Robins; she allowed both for the availability of low cost or free care provided by relatives, and variation by geographic location, by the age and number of children in the family, and by the child care quality level chosen by the family (proxied by education and income effects on expenditure).

Connelly calculated the elasticity of the probability of participation when there are changes in the cost of child care. This was -0.49 when evaluated at the mean values of probability and child care cost. If average child care costs were fully subsidized for the mean woman, the predicted probability of her participation in the labour force would rise from 0.68 to 0.92. Connelly noted that this finding was similar to Blau and Robins (1988) who calculated that the probability of participation with zero child care costs was 0.87 (up from 0.40). A very different picture of the elasticity emerges when the average behaviour of all mothers, rather than the behaviour of the average woman was considered by Connelly. The probability of participation rose only from 0.5714 to 0.6090. Connelly concluded that the current female labour force was relatively insensitive to a drop in the price of child care from its current level. Connelly, however, calculated that a rise in price would have an important impact. If all mothers had to pay a nonzero price for care, only 35.26%, rather than 57.25% of mothers would have been in the labour force.

Connelly's finding, distinct from that of Blau and Robins, is a significant one. To summarize, the current widespread availability of low or zero cost child care from relatives, fathers, and neighbours implies that full subsidization of child care would not necessarily boost labour force participation rates dramatically. However, *increases* in price would have a dramatic effect on overall participation rates. To go beyond Connelly's study, we might say that the hidden story of rising participation rates among mothers over the last 15 years or so has been the willingness of family members, relatives and neighbours to provide cheap and free child care. If this willingness changes (because, for instance, more grandmothers are in the work force) the prices many mothers have to pay for child care will rise; this could have a major impact on mothers' work patterns in the future. In Connelly's data set, over 60% of working mothers paid zero for child care. About 40% of those with only children under six paid zero.

In an unpublished paper reported in Connelly (1990a), Connelly has estimated the effect of child care cost on the labour force participation and use of social assistance by unmarried

mothers. She found that for unmarried women, as child care costs rise, the likelihood of being in the labour force falls and the likelihood of being on social assistance (AFDC) rises. Connelly calculated that implementing fully subsidized child care for unmarried mothers would reduce AFDC recipiency from 20% to 11% of these families.

Connelly (1989b) uses the same SIPP data set as Connelly (1989a) to look at the effect of child care costs on the number of hours worked by married and unmarried women. She found that hours worked are less sensitive to child care costs is the decision to participate in the labour force, and less sensitive than the apparent results of Bloom and Steen (1989). Child care costs were found to have no significant effect on hours worked for married women; for unmarried women, a $10.00 increase in weekly child care costs only decreased the hours worked by one hour per week.

In conclusion, we may say that the empirical work of Bloom and Steen, Heckman, Blau and Robins and Connelly has confirmed that the price of child care is a significant factor in the decision of mothers of young children to participate in the paid labour force. However, as Powell (1991) has noted, the magnitude of this effect is still in some dispute. It also appears that child care costs affect related decisions such as the number of hours worked, fertility, and the likelihood of being on social assistance. The magnitude of these effects is not yet well established but in each case, empirical work has tended to confirm that effects are in the direction predicted by economic theory.

The Demand for Child Care by Working Mothers

2. What are the key factors which determine what type of child care will be used by families having working mothers, and what is the relative importance of these different factors?

There have been a relatively large number of studies now, most of them American, on the choice of child care arrangements by families with employed mothers. These studies have, as a maintained hypothesis, the assumption that mothers choose to enter the labour force and work certain hours prior to choosing a particular type of child care. This assumption can only be an approximation; there has been no attempt to test the amount of error this may introduce into the results.[2]

Robins and Spiegelman (1978) was the first of these child care choice studies to use the, now standard, multinominal logit statistical model to estimate the effect of different variables on type of child care chosen. Their study, using data from the Seattle-Denver Income Experiment, foreshadows many of the results of later work. They found child care choice to be very sensitive to changes in the price of care (proxied by differing subsidy rates), with the demand for formal day care being highly elastic. Robins and Spiegelman also found higher mother's wages to be strongly positively correlated with the choice of either formal or informal types of market care rather than non-market care. However, husband's and non-wage income were found to have no significant impact. Variables representing various family characteristics were found to be important determinants of demand.

Yaeger's study (1978), using a sample of full-time municipal employees in New York, is notable for its use of self-reported data on the price, quality and accessibility of each of the types

of care available to each family in the sample. Price, quality and accessibility (or convenience) all are strongly significant desired characteristics of child care, according to Yaeger's results. The effect of price is relatively large, and that of staff-child ratio and travel time is relatively small. Measures of family income had no impact on choice.

Lehrer's study (1983) is noteworthy primarily because it came up with a contrary view of the effect of husband's income on child care choice. In her results, based on the 1973 *National Survey of Family Growth*, a measure of a husband's permanent income was found to be highly significant and to have a large positive impact on the probability that either an organized facility or a baby-sitter would be chosen, rather than care by a relative. The mother's wage and hours of work were also found to have a positive impact on these choices. Lehrer's study, however, had no explicit measures of price, convenience or quality, so variation in these factors is not controlled.

Leibowitz, Waite and Witsberger's study (1988) similarly does not include explicit price, convenience or quality variables. It is notable for its hypothesis that the most appropriate form of child care is different for 0-2 year old and 3-5 year old children. The authors hypothesized that higher levels of mother's education would, therefore, have different effects according to the age of children in the family. The authors found some support for their theory in the data.

Lehrer (1989) maintained the Leibowitz et al. hypothesis that a day care centre is the most appropriate form of care for 3-5 year old children (termed preschoolers). Her study tested two consequent hypotheses: that an increased amount of family economic resources will increase the likelihood of using this most appropriate form of care, and that if there are additional siblings requiring care it will increase the likelihood that less desirable forms of care will be used for the preschooler (a quality-quantity trade-off). Lehrer used data from the 1982 *National Survey of Family Growth* which included no explicit price variables; in fact, she discarded all subsidized day care users from the sample to reduce the effect of price on results.

Lehrer found a significant positive effect on day care centre use when the father's income was in the top two-thirds of the income distribution rather than in the low income category. However, when mother's education was included as a separate regressor, the significant effect of father's income on day care use disappeared (although income continued to be associated with increased likelihood of using a baby-sitter in the child's home). Lehrer concluded that correlations between income and day care use were largely an education effect.

Lehrer found mother's wages and hours of work to be strongly positively associated with the use of day care. Given the pattern of signs and significance, Lehrer interpreted this largely as an income effect rather than a price of time effect. In other words, father's income has little effect, but mother's income and education have strong positive effects on the likelihood of day care use.[3]

Lehrer also found strong support for her second hypothesis: having additional siblings needing care, particularly in the non-preschooler age groups, decreases the likelihood of using day care centre care. It is worth noting, given some discussion in the literature of the importance of multiple child care arrangements in families, that Lehrer found these to be rare; in her sample, the vast majority (89%) of families with two or more children in substitute care use a common child care arrangement for their children.[4]

Hofferth and Wissoker (1990) adapted the child care expenditure regression technique from Connelly (1989a) in order to develop an expected price variable for use in a logit model of child care choice. Data on child care prices provided by users of each type of care was regressed on family characteristics and corrected for sample selection. Expected prices of each type of care for

each family in the sample were then calculated using the estimated price parameters. Price was found to have a large effect on child care choice and was statistically significant in most cases (though not for centre care); quality (measured by staff-child ratio) was found to have a positive effect on the likelihood of using centre care. Family income was not found to have any effect on child care choice.

There are three Canadian studies of child care choice which used regression techniques: Payette and Vaillancourt (1984), Henriques and Vaillancourt (1988) and Cleveland and Hyatt (1990).[5] The first two suffer from small sample size (Payette & Vaillancourt, 1984), combining of mothers inside and outside the labour force in the same sample (Henriques & Vaillancourt, 1984) and lack of any explicit price variable (both). Cleveland (1990) constructed a price variable and found that both price and convenience were strongly significant. Cleveland found that four sets of variables are all important in explaining child care choice. They are: 1) attributes of different types of child care; 2) variables describing the age and number of children in the family; 3) mother's employment variables (including whether she works a non-day shift); and, 4) various socio-economic variables including mother's education and the ethnic background of the child's family.

To summarize some results from these studies, we can focus narrowly on factors that have been found important in the choice of a day care centre. This type of comparison is necessarily hazardous because the origin and design of samples, definition of dependent and independent variables and statistical techniques vary markedly. The exercise seems useful, nonetheless, even if only approximate.

Wherever the price of day care is used as an explanatory variable (Hofferth & Wissoker, 1990; Yaeger, 1978; Robins & Spiegelman, 1978; Cleveland, 1990), its effect is negative and significant.[6] Convenience or accessibility variables (Yaeger, 1978; Leibowitz, Waite & Witsberger, 1988; Cleveland, 1990) inevitably show that increased convenience or accessibility makes choice of day care more likely. Quality variables (Yaeger; Hofferth & Wissoker, 1990) inevitably show that higher quality increases the likelihood of choice. In other words, this group of studies strongly suggests that the price, convenience and quality of day care are important factors influencing the decision of families to use this type of child care.

The presence of infants (variously defined) in families makes the choice of a day care centre less likely, except in Lehrer (1983) where the infant category is broadly defined to include children 0-3 years of age. Mother's hours of work, wage rate, and education are sometimes significant in the choice of day care and sometimes not (Hofferth & Wissoker, 1990; Lehrer, 1983, 1989; Robins & Spiegelman, 1978; Yaeger, 1978; Henriques & Vaillancourt, 1988; Cleveland, 1990). When significant, these factors inevitably bear a positive relationship to the likelihood that day care will be chosen.

Family income or husband's income are typically insignificant in these studies for explaining choice of a day care centre (Hofferth & Wissoker, 1990; Yaeger, 1978; Robins & Spiegelman, 1978; Leibowitz, Waite & Witsberger, 1988; Cleveland, 1990). Henriques and Vaillancourt's (1988) significant finding for family income is apparently due primarily to the ineligibility of higher income earners for day care subsidy. Only Lehrer's (1983) findings contradict the basic pattern of insignificance for husband's or family income. A husband's permanent income (a constructed variable depending on husband's education, age, occupation and some other factors) was found to be highly significant in explaining the choice of an "organized facility" rather than a relative, though not for the choice of an "organized facility" rather than a sitter. Lehrer (1989)

concludes that the positive effect of a husband's income on day care use is, in reality, a positive education effect, which disappears when mother's education is separately controlled.

The Elasticity of the Supply of Child Care

3. Can more child care of different types be provided at current prices, or will prices necessarily rise as more child care is provided, and by how much?

Very little empirical work on the supply of child care services of different types has been carried out. Connelly (1988a, 1988b) is perhaps the main source if we wish to discover the theoretical expectations of economists concerning child care supply. She divides non-parental child care into three categories: relative care, non-relative home care, and group care. There is little to say about relative care; one third of it involves cash payments and we anticipate that the relative provides care at the opportunity cost of her (his) time.

Many of the non-relative home care providers are themselves mothers of young children who care for their own children while they provide market child care. For this reason, they can charge less than full price for the value of their time, and a lower cost than group care, in general. Connelly notes that a rise in the price of child care will not only cut back on the demand for care, but will also increase the supply, because some mothers will now find it profitable to supply care rather than work and demand it.

The supply price of group child care depends both on the technology of production of child care services and on what is happening to costs of the inputs. Connelly hypothesizes that there are constant returns to scale in group child care operations. In other words, it will take approximately twice as many workers to care for twice as many children. On the cost side, the chief concern is labour costs, because 60% to 80% of all costs in group care are for personnel. Connelly argues that the supply curve of labour to the child care industry is not perfectly elastic; in other words, to attract more workers as group child care expands, it will be necessary to pay higher wages. Currently child care workers are paid much less than workers with comparable education; Connelly deduces that these workers must get special nonpecuniary benefits from the joy of working with children in order to be willing to do so. Additional workers will therefore cost more to attract than current workers. The combination of constant returns and increasing costs of labour implies a rising supply price of group child care as more child care is demanded.

Connelly (1990b) has done some empirical work to test her hypothesis about non-relative home care providers. Taking the group of mothers who care for their own preschool children at work from the 1984 Panel of SIPP, she finds that 48% of them are child care providers and 58% of them are self-employed.[7] Self employment and providing child care can be seen as occupational strategies to eliminate or lower the cost of child care to mothers with young children. Using a multinominal logit model to test factors which make mothers more likely to become a self-employed child care provider or self-employed but not a child care provider, Connelly finds that the number of children aged 0-2 and the number of children aged 3-5 years are strong positive predictors of being a self-employed child care provider, whereas having more education makes this occupation less likely. Having more children 0-2 years has no significant effect on the decision of mothers to be self-employed (but not a paid child care provider) but the number of children 3-5 and 6-12 years of age does have a significant positive impact, and work

experience has a nonlinear positive impact. This result confirms Connelly's hypothesis that these two occupational choices are strongly encouraged by the desire of mothers to provide child care for their own children at the same time.

Blau (1990) provides a valuable empirical look at the sensitivity of wages to increases in demand, the key element underlying the supply curve of child care. He uses CPS data on three types of child care workers in the U.S. from 1976-1986: child care workers that work in private households, non-household child care workers, and teachers. For the most part, these categories appear to correspond to unlicensed family home day care providers, day care workers, and preschool and nursery school teachers. The average hourly wage of all types of child care workers is less than the wage of the average of female workers in all other occupations but there are significant differences: unlicensed family care providers get about 37% of the average female wage, while child care workers get about 60% and teachers get about 75%.

Blau finds other significant differences between the three different classes of child care worker. Caregivers in a private household, generally, have not completed high school, are younger, and less likely to be black, and have more young children. On average, they work considerably fewer hours and weeks per year than either of the other two types of child care worker. Day care workers have on average completed high school. Preschool and nursery school teachers have a couple of years of college. Blau concludes:

> Private household workers appear to be less attached to the labor force, lower skilled, and more likely to be caring for a child of their own while working than are other child care workers. Preschool and nursery school teachers are substantially better skilled, work 75% of the year (similar to many other teachers) and seem more likely to view child care as a profession rather than a relatively casual occupation. Non-household workers fall between the other groups in each respect (p. 6).

Blau calculates two stage least squares estimates of the factors determining wages of each category of child care worker and of all other female workers, with the number of children an endogenous choice for the mother. The wage equations are corrected for sample selection bias. Several interesting results emerge. While the wage levels of "other workers" are significantly explained by factors such as age, race, urban location, and education, the wages of the three types of child care worker are insensitive to virtually all of these factors. The only exception is the positive influence of education on the wages of day care workers. There are no positive returns to greater education for either private household workers or teachers. There is, however, a significant negative effect of the number of children under five on the wages of private household workers. This provides further evidence that this unlicensed care provision is frequently chosen as a means of providing care for one's own children; the more of one's own children a mother has to care for, the fewer other children can be taken in.

The key result, as far as the supply of child care services is concerned, is the insignificance of nearly all indicators of increased demand for the wage level of each type of child care worker. There is some possibility of measurement error in many of these indicators, but it is more likely, concludes Blau, that this can be taken as evidence that the labour supply curve of each type of child care work is quite elastic. This would imply that Connelly's hypothesis of rising labour costs as the child care industry expands is incorrect. Instead, if Blau's results are accurate child care may be approximately viewed as a constant cost industry.

Presser (1986) has produced virtually the only empirical analysis of the way in which mothers use shift work to care for their children. Presser used information from a fertility survey, supplementary to the June 1982 *Current Population Survey*, to analyze child care and non-day shift work for mothers age 18-44 years, with a child less than five years of age. A day shift was defined for full-time workers as one in which at least half the hours fall between 8 a.m. and 4 p.m. and for part-time workers as a schedule in which work begins after 4 a.m. and before 4 p.m. All other work schedules were considered to be non-day shifts. According to these definitions, about 14% of full-time employed mothers with children less than 5 years worked a non-day shift, and about 22% of such mothers were employed part-time.

Presser found that unmarried mothers were twice as likely to work non-day shift as married mothers. She also found that mothers working a non-day shift were much more likely to use child care provided by a relative for their preschool child. In the case of married mothers this was generally the child's father; for unmarried mothers, it was generally the child's grandmother. The figures are particularly noteworthy for married mothers: 12% of full-time day shift workers use father as the primary form of child care while nearly 39% of full-time non-day shift workers use fathers for child care; less than 17% of part-time day shift workers use father as the primary form of child care while about 60% of part-time non-day shift workers use fathers for child care.

Not all fathers are able and willing to provide child care while their wives work non-day shift. Presser finds that when mothers of young children work non-day shift full-time it is the father's employment status that is the most important determinant of use of his child care services. When mothers work non-day shift part-time, however, father care is greatest when there are two or more children and the youngest is between 1 and 3 years old. The husband's employment status is, in this case, a less relevant consideration. Presser also cites evidence that women working non-day shift are more likely to feel constrained from working extra hours than day-shift workers. This appears to be largely due to the constraint imposed on those mothers who currently use father care.

There has been little research on the factors which determine the provision of care by relatives inside or outside the child's household, nor, apart from Presser (1986), on provision of care by fathers while the mother is working. However, the availability of free or cheap child care from these sources is central to the child care choices currently made by families and to the functioning of the child care market.

The Remuneration of Child Care Workers

4. Why are the wages of child care workers so low?

Some of the research which bears on the wages of child care workers has been discussed above. Because the bulk of the cost of child care is for wages and benefits, it is hard to separate a discussion of the supply of child care from a discussion of the supply and demand for child care workers.

There is evidence that the pay of workers in day care centres is low. In the only Canada-wide survey, Patti Schom-Moffatt (1985) found that the majority of day care workers have one or two years of early childhood education, and a third have education beyond this level. Nonetheless, in 1985 the average wage was $7.29 per hour or $14,212 on an annual basis. Staff

in commercial centres earned 30% less than those in non-profit centres and 50% less than staff in municipal centres. About one third of centre-based workers report that they are currently the sole income earner in the family; another third provide one quarter or less of total family income, with another third provide between one quarter and one half of total family income. One in five works in a centre that offers reduced child care fees to employee-parents.

Hartmann and Pearce (1989) drew on a wide range of small surveys, census data and other sources of information[8] to compose a picture of the work situation of child care workers in the United States. They found that the average child care worker (not including the large number of self-employed sitters in their own homes) had more education but earned much less than the average U.S. worker and that turnover was about twice the national average. On the other hand, they found that some child care workers, particularly those in the public sector, in schools, and in unionized settings, earned more and had longer job tenure than their fellow workers and could improve their remuneration as seniority and education increased. Child care workers are overwhelmingly likely to be female (94%), and, somewhat surprisingly, are somewhat older than the average worker (only 44% under age 35). Hartmann and Pearce quote studies which suggest that future employment in child care is expected to grow more rapidly than the labour force as a whole between 1986 and the year 2000.

The *National Child Care Staffing Study* (Whitebook et al., 1989) proposes in its introduction that outdated attitudes about women's work and the family are responsible for the low wages of child care workers. In particular, because jobs in child care are seen as an extension of women's familial role of rearing children, professional preparation and adequate compensation are viewed as unnecessary.

This study, based on survey and observation in 227 day care centres in five U.S. metropolitan areas, certainly confirms the finding that wages in centres are low. The average hourly wage in 1988 was $5.35, more than 20% lower, after adjusting for inflation, than a decade earlier. That works out to less than $10,000 annually for full-time work in a child care centre. Only 16% of workers surveyed earned more than $7.00 per hour.

In contrast to education levels in Canada, in the United States education levels of centre-based child care workers are not high: less than 10% have early childhood certification, and only 25% have professional certification in any field. Yet this does not explain the low average wages. Day care workers in the survey were found to earn about half as much for full time work as other women with similar education, and about one-third as much as men with similar education.

The *National Child Care Staffing Study* analyzes the effects of low wages rather than their causes. Low wages are important in explaining average turnover rates of 41% per year in centre-based care; high wages are strongly correlated with more appropriate teacher behaviours with children in the centres. Two points made in the N.C.C.S.S. help explain why younger women (97% of workers surveyed were female; 81% were 40 or younger), continue to be willing to take jobs in day care. First, over 40% of day care workers have children, and a large proportion of them receive reduced-fee care for their children. Second, although workers exhibit low satisfaction with salary and benefits, they are highly satisfied with other aspects of the job, particularly the opportunity to participate in the growth and development of young children (as N.C.C.S.S. puts it, there are high "intrinsic rewards" to this job).

Does The Child Care Market Work Well or Poorly?

5. Do child care markets work relatively smoothly and well to provide the types and kind of child care that families are willing and able to purchase? Or, are there major impediments to the operation of supply and demand in the child care market?

It is difficult to do a direct empirical test of the way in which a market functions, i.e., whether it is competitive, monopolistic, or whether there are important restrictions on the competitive setting of prices, etc. There have been two prevailing assumptions about the market for child care services which have dominated public debate and been adopted by child care researchers in economics or other fields. Many economists have tended to assume that because the technology of producing child care is relatively simple, because entry of new producers into the industry is easy, and because there is no evident monopolization of the market or of key resources, the market for child care services approximates a competitive market. Researchers from other disciplines and child care advocates have countered with the diametrically opposed notion that there are persistent, unrelieved shortages of licensed, good quality child care, especially care for infants and school-age children.

A number of economists (e.g., Strober, 1975; Connelly, 1988a, 1988b) and others (Hofferth, 1989) have addressed the hypothesis of shortages directly in their analytical work, examining various items of indirect evidence. Their strong conclusion has been that there are not, in an economist's sense, persistent shortages in child care markets. Markets do, approximately, clear; as a general statement, the large majority of families who both have the desire and the ability to pay the prevailing cost of the type and quality of child care desired can find that care in the market. There are not a large number of families willing to pay the full price that are unable to find care.

It may well be simultaneously true that a large number of families *should* have financial assistance and access to much better quality licensed care than have that access at present. This is, however, a policy statement rather than an analysis of how child care markets currently work or fail to work. In an economist's sense, the child care market is functioning when those that can pay the going price are able to find the type of care they most prefer. What we observe in child care is, from this perspective, the result of the functioning of markets, not of their failure to function.

We have described this debate about the functioning of child care markets as if there were only two sides. In fact, for some time, there has been a third position. This position emphasizes the peculiarities of child care markets: for instance, instead of all consumers facing approximately the same price for a homogeneous good or service, child care consumers each face a different set of prices. One family is eligible for a day care subsidy but does not have a relative willing to provide inexpensive or free care. Another has relatives and neighbours willing to take a child for little remuneration, but its income makes it ineligible for day care subsidy. Yet another may only have full price day care, sitters or nannies from which to choose. Child care markets may not have shortages, in any strict sense, but they have peculiarities which mean that the results produced by a competitive market may not be optimal. In particular, information flows in child care markets may be regarded as poor; this includes both information about the availability and the quality of different forms of care. Walker (1990) supplemented with some Canadian evidence in Cleveland (1990), and Nelson and Krashinsky (1973; 1974), have analyzed and provided some evidence

about the effects of poor information flows on the functioning of child care markets. A somewhat different perspective, where quality rather than price adjusts to equalize demand and supply for child care is proposed by Glantz (1990).

Kisker and Maynard (1991) review some evidence that parents are not well informed about available child care options, and that consumer sovereignty exercised by parents is insufficient to ensure that child care is typically of good quality. Blau (1991) contrasts the "educator's" and the "economist's" models of child care quality. Evidence that parents are unwilling to pay for quality as defined by child development specialists suggests tighter regulation of child care services will not achieve its desired goals. Education of parents about the importance of child care quality is necessary.

QUESTION 3: HOW DOES ECONOMICS DECIDE WHAT IS GOOD PUBLIC POLICY?

The approach of economics and economists to public policy is, in essence, based on the appealing features of decision-making in a society simultaneously characterized by competitive markets and a socially desirable distribution of income and resources. In such a society[9], it can be shown that prices of goods and services would equal their true cost of production, individuals would choose between desired alternatives with these socially appropriate prices in mind. The result would not be that everyone would get all that their hearts could desire, but rather, they would get what they really considered the most important to them when faced with the true cost of getting it. Since the original distribution of income and resources was considered to be perfectly fair, this system of decision-making would give maximum freedom to individuals, while preserving social fairness.

In the child care context, individuals responsible for children (usually mothers) make two fundamental economic decisions: to enter or not enter the paid labour force based on the relative costs and benefits of each course of action, and if entering the labour force, what type of substitute child care to use while at work, based on the costs and benefits of different forms of care. If markets were perfectly competitive and income and wealth entirely fairly distributed, economic theory suggests that each mother would make the best labour force decision and the best child care decision from her point of view (i.e., from the point of view of the costs and benefits to her and her children).

Of course, our economy is not perfectly competitive, but economists use this model as the benchmark against which true markets are measured, believing that a closer approximation to competitive conditions will give better results. If we agree that the society of competitive markets is desirable, then the essential task of public policy intervention is to repair deviations between the results produced by real world markets (the child care market, for instance) and the competitive ideal. These deviations are fundamentally of two kinds: markets for some reason do not work properly (therefore economic efficiency is harmed) or the original distribution of income and resources was not socially desirable (and therefore economic equity is impaired).

There are a series of acceptable arguments as to why markets may not work properly: goods may be, by their nature, public goods rather than private ones and therefore a private market will result in the production of too few or none of the product; there may be external benefits or external costs of producing and consuming a particular good or service, so a private market will

result in the production and consumption of too little or too much of it; information problems of various kinds may impede the functioning of markets (the perfectly competitive market model assumes that consumers have perfect knowledge about the availability, characteristics, and long term effect of each product available and that sellers do not have the power to control or distort information for their own purposes); there may be monopoly or oligopoly control of prices or other conditions in a market. And there are ample grounds for arguing that the distribution of income and resources is unjust and that various remedies may be desirable. Policy discussion about child care by economists generally seeks to apply these various arguments about efficiency and equity to the specifics of the working of child care markets. Conclusions about appropriate policy remedies can then be drawn.

QUESTION 4: WHAT IS THE ECONOMIC RATIONALE FOR ALTERNATIVE CHILD CARE POLICY PROPOSALS? WHAT CONTRIBUTION CAN FURTHER ECONOMIC RESEARCH MAKE TO POLICY DECISION-MAKING?

Within the framework outlined above, existing child care policies or new child care proposals must seek their justification either as a remedy for some type of market failure in child care markets or as a (partial) response to the socially unacceptable distribution of income and economic resources. It is instructive to review economic rationales for a number of the major Canadian governmental child care provisions:

1. **Day care subsidies to low income families such as those currently financed under the Canada Assistance Plan**. First, these subsidies can obviously be motivated partially as a response to the maldistribution of income in society. Second, these subsidies reflect the social or external benefits of ensuring that children from low income families have access to good quality developmental care. External benefits, because they are felt by someone other than the immediate consumer of a product, are not registered in demand on the private market. Some form of government intervention, such as day care subsidies, is necessary. Third, such subsidies can be motivated as an attempt to overcome another factor which distorts child care and labour force participation decision-making of low income families; that is, as an offset to the extraordinarily high effective tax rates on income for such families (Powell, 1991).

2. **The Child Care Expense Deduction** (CCED). Nearly all analysts from other disciplines view the CCED as simply a form of financial assistance for the child care costs of families, and criticize it for being oriented to middle and upper income families. Economists tend to rationalize the CCED as a simple measure of tax fairness for the second earner in a family. Child care costs are essentially a work expense for the second earner (generally the mother) who decides to enter the labour force. As with other major costs required to earn an income, the argument goes that this cost should be deducted from taxable income before tax rates are applied. If child care costs could not be deducted from income, it would amount to the levying of a serious tax penalty on mothers of young children. This would be unfair (i.e., would discriminate against mothers) and would also, from society's point of view, be

inefficient (because someone who was actually more productive in the paid labour force than outside it would be kept out by the design of tax policy).

3. **Operating grants**. If parents choose, for whatever reason, child care which is of too low a level of quality, operating grants to good quality forms of care may be justified. This may be a situation where the benefits of higher quality child care to society exceed the direct benefits of higher quality to the parents who are doing the purchasing. These "external benefits" are not recognized in a private competitive market; if society wants the optimum results, it will have to pay for them. This payment could take the form of an operating grant.

Alternatively, operating grants (which lower the price of various forms of child care) could have as a major objective the encouragement of mothers into the paid labour force. There is considerable evidence that women are discriminated against in the labour market (i.e., the market is not perfectly competitive). A substantial amount of this discrimination is related to the actual or imagined differences between women and men due to women's child-bearing and child-rearing roles. Government policy to lower the cost of child care would act, in the short run, to lower the barrier that child care costs pose to the entry of mothers into the paid labour market. In the longer run, the social commitment to pay for good child care while mothers work would change the patterns of human capital investment by women, patterns of future occupational expectations, and lifetime patterns of labour force participation by women. All these factors are believed to be strongly related to the wage discrimination and occupational segregation of women in the labour force.

4. **Regulation of quality**. Parents' information about child care quality and about the effects of poor quality care on children is far from perfect. However, the theory of perfectly competitive markets assumes perfect knowledge, in two senses. First, parents are assumed to know what type and quality of care is best for their child. Second, parents are assumed to be able to see through any attempts to camouflage the true quality of care in a child care facility, and only choose the real thing. Yet, parental knowledge about what to look for in a good care situation and ability to judge true quality are highly imperfect. Direct regulation of child care is desirable to outlaw dangerous child care practices and situations and to increase the amount of knowledge available to parents about actual quality levels.

WHAT CONTRIBUTION CAN ECONOMISTS MAKE?

Most of our current knowledge about how child care markets work relies too heavily on American research. We are unclear about the ways in which these results need to be amended to suit the Canadian child care reality. We need to assess the effect of child care costs on the labour force participation of mothers, the demand of employed mothers for different types of child care, the supply by providers of different types of child care, and the supply of child care workers of different types using Canadian data. Only then will it be possible to judge the magnitude of the effect of any particular child care policy on child care markets.

In addition, economists need to expand on the insights of James Walker (1990) and investigate the ways in which child care markets are characterized by information and supply

problems. Empirical data can shed light on how severe these problems are in distorting the operation of child care markets.

Finally, economists, armed with insights about the possible imperfections in child care markets, need to much more thoroughly draw out the implications for child care policy. Current debates about child care policy suffer both from lack of conceptual clarity (i.e., what are the key policy objectives and how do policy tools help to achieve them?), and from an inability to measure the actual effects of proposed policy (i.e., how much bang do I get for my precious tax dollar?). Economists can, and should, make valuable contributions to both of these weaknesses in current debates.

ENDNOTES

1. Elasticity is a favourite concept of economists. Elasticity measures the change in one variable which occurs as a result of a one unit change in another variable. The elasticity of .47 means that a one percent rise in price brings forth a .47% increase in the transition from employment to non-employment.

2. In general, the data sets used in these studies included only observations on families with employed mothers (or some similar limitation), so that estimating a more complete model of the joint employment-child care choice was not possible.

3. Lehtrer did not, however, combine mother's wage and hours of work to form an explicit mother's income variable.

4. Cleveland (1990) similarly found multiple child care arrangements to be rare.

5. Cleveland and Hyatt have presented some preliminary findings from work on the 1988 National Child Care Survey in another contribution at this conference.

6. Hofferth and Wissoker's (1990) price results are no longer significant when the generic price specification is relaxed.

7. Presser (1986) found that one-third of mothers who cared for their own preschooler while at work were themselves employed as a child care providers (compared to 4.5% of all employed women who were child care providers).

8. Hartman and Pierce (1989) also raise issues about the data categories of the three types of child care worker analyzed by Blau (1989); their comments are relevant to interpreting that study.

9. Some assumptions, such as the absence of externalities and public goods, are required.

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A SOCIOLOGICAL PERSPECTIVE ON CHILD CARE RESEARCH

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ABSTRACT

This paper examines child care research prepared from a sociological perspective, focusing on collective perceptions, social structures or ideologies. After noting the paucity of published articles in sociological journals, themes in recent research published elsewhere are discussed. These themes include the demand for and availability of child care services, strategies for managing work/family conflicts, the division of labour within families, and child care policy issues. The findings of sociologists, topics which have been emphasized, and aspects of child care research that have been overlooked form the subject matter of this paper.

INTRODUCTION

The Prevalence of Child Care Research by Sociologists

Until recently, sociologists have paid far less attention to child care issues than to other aspects of family life. After searching through the last three years of *Sociological Abstracts*, *The Canadian Periodical Index*, *The Canadian Journal of Sociology* and *The Canadian Review of Sociology and Anthropology*, the paucity of sociological articles on child care or any aspect of children's lives is notable. With a few exceptions (Johnson & Dineen, 1981; Johnson, 1986; Lero, Pence, Goelman & Brockman, 1988; Lero & Kyle, 1991; Prentice, 1989, 1991), child care issues have been mainly studied implicitly, through research on women's family/work conflicts. In fact, most sociological research on family life has focused on the problems and points of view of adults, especially wives and mothers.

Researchers from other disciplines have been more likely to emphasize children's issues. For example, the socialization and development of children have been researched by psychologists, educators and social workers, while legal researchers and social workers have been concerned about foster care, adoption, child protection, children's rights and "the best interests of the child" (Andrews 1991; Hill, 1989; Lenton, 1990; Parsons 1989). Mainly historians, but also some sociologists (Lee, 1982; Mackie, 1990), have examined changing perceptions of childhood as a stage in the life cycle throughout history.

Although Canadian sociological journals have not published many articles on child care, several papers have been presented at the Annual Meetings of the Canadian Sociology and Anthropology Association in recent years. In addition, numerous articles on child care policy were published in Canadian magazines when new federal legislation was being considered in Parliament in 1988, and some of this writing used a sociological perspective (National Council of Welfare, 1988). More recently, several new books have included chapters dealing with child care (see, for example, the chapter by Lero & Kyle in Johnson & Barnhorst, 1991).

Most of the sociological books, chapters, articles and papers on child care have been written by women, usually from a feminist perspective. The paucity of child care articles in Canadian

sociology journals may reflect the fact that most sociologists in the past have been male (unlike social workers, educators or psychologists). These men have probably not had to deal personally with conflicts between work and family life to the same extent as women have. Similarly, men are less likely to have gained experienced working with children. For these reasons, we are speculating that (male) sociologists have been relatively unconcerned with child care issues and have lacked personal motivation to do research in this area. We can also assume that men, as journal editors and reviewers, have attributed lower importance to research on women, family or children compared to other substantive areas. As more women enter sociology as a profession, however, interest in child care and work/family conflicts grows within the profession, as within funding agencies. This suggests that in time, research on child care will become more prevalent within sociology.

The absence of published articles on child care issues in Canadian sociology journals could also be attributed to the fact that, historically, this subject matter has been published within social psychology, social work and education journals. However, these journals tend to accept articles using the individual as the unit of analysis or adopting a child development approach rather than a structural or feminist perspective taken by many sociologists.

The fact that papers are increasingly being presented at CSAA Annual Meetings indicates that sociological research is being done on child care and more publications might appear in sociology journals in the near future. This could be prevented, however, by authors sending their papers to non-sociology journals or by editors of sociology journals deciding not to accept such articles.

Apart from sociological journals, sociological research and publishing on child care is occurring, but in other sources such as trade and academic books, multidisciplinary feminist journals, Parliamentary Committee reports and other government documents. At the municipal, provincial and federal levels, the shortage of affordable child care has been an important policy issue for many years, and there is a considerable amount of policy literature addressing this issue, much of which is written by women.

From reviewing the available research using a "sociological perspective" (or focusing on collective perceptions, social structures and ideologies), I have noted several prevalent themes:

1. The shortage of licensed and regulated child care services, including indicators of demand and availability.

2. Strategies for managing work/family conflicts, including having fewer children, temporarily opting out of the labour force, working part-time, and working in "pink-collar" jobs.

3. The division of labour within families and the fact that women continue to be the primary caretakers of children.

4. A variety of child care policy discussions which tend to focus on funding arrangements, the relationship between service provider and quality of care, the qualifications and pay of child care workers, and family-related leave policies from work. Much of this policy research refers to cross-national comparisons.

In this paper, I would like to discuss each of these themes in the sociological child care research, emphasizing what we know from these studies and what appears to have been omitted.

THEMES IN SOCIOLOGICAL RESEARCH ON CHILD CARE

The Demand for and Availability of Child Care Services

Sociologists generally agree that the recent demand for non-maternal child care has arisen from the large-scale entrance of mothers into the paid workforce. Most sociologists note that the widespread employment of mothers relates mainly to economic forces, such as the demise of the "family wage", the expansion of the service sector of the labour force with its subsequent demand for labour and inflation. But they also emphasize that the entrance of mothers into the labour force has been influenced by ideological factors, such as the expansion of women's roles and expectations (Ambert, 1990; Bonner, 1989; Boyd, 1990; Coltrane, 1989).

Researchers from a variety of disciplines have pointed out that the demand for non-family child care far outstrips the availability of regulated services. Abramovitch (1987) examines demand based on numbers of employed mothers with preschool and/or school-aged children. In other studies, demand is based on the number of children under six years old whose mothers are working or studying full-time. Availability of licensed and regulated child care is usually measured by "spaces" in day care centres and family homes. Whatever measure is used, the figures reveal that the demand for non-maternal child care has increased considerably in the past twenty years and far outstrips the availability of services.

Interviews with parents about child-care concerns have led researchers to conclude that basing the need for child care services on the number of women already in the labour force underestimates demand (Johnson and Dineen, 1981; MacBride-King, 1990). If child care services are not available in the community or are perceived to be of low quality, couples sometimes feel that mothers have to decide whether or not to enter the work force.

Researchers have also noted that a small percentage of children are cared for in licensed and regulated spaces because the number of such spaces is much lower than the demand. Most parents use relatives, friends or paid sitters to care for their children in the child's or the caregiver's home. These caregivers usually do not have specialized qualifications, and may or may not be reliable. However, they cannot easily be supervised by the parents while they are at work (Johnson & McCormick, 1984).

There are several implications that result from the lack of affordable and high-quality care for children and for parents. Many children are left in unstimulating or dangerous environments because their mothers cannot find better care for a price they can afford. These issues have not been dealt with in much detail by sociologists, but have been the focus of studies in other disciplines. Instead, sociologists have tended to focus on the consequences of lack of affordable and quality care for working mothers. We will discuss these work/family conflicts in the next section.

Strategies for Managing Work/Family Conflicts

Most of the sociological research on child care issues (broadly defined) deals with the prevalence and indicators of work/family interference, especially among mothers with young children. In addition, there is considerable research about policies, practices and benefits which can ease time restraints and assist working parents to combine their work and family lives (Blain, 1989; Emlen & Korem, 1984; Fernandez, 1986; Frankel, 1988; Friedman, 1986; Friendly, 1989; Lero, 1990; Lero and Kyle, 1991).

Studies have shown that fearing that their children are not adequately cared for weighs heavily on the minds of many working parents. Especially mothers spend portions of their work day phoning to check on their children or lowering their productivity through worrying. Galinsky, Hughes and Shinn (1986) found that among parents with children under six, 68% of mothers and 51% of fathers said that they experienced some or a great deal of interference between work and family life. In a Toronto study, Michelson (1985) found that 37% of mothers with full-time jobs said that they felt conflict quite often or very often between being a mother and having a job.

Many sociological studies have noted that managing childrearing and paid employment provides special problems for women, because housework and child care remain their responsibility (Evetts, 1988; Hughes & Galinsky, 1988; Johnson & Abramovitch, 1989; Leah, 1981). One strategy to relieve "role strain" is to have no children or fewer children (Jones, Marsden and Tepperman, 1990: 19). In fact, there is a definite correlation between the entrance of mothers into the paid workforce and the decline of the birth rate in most industrialized countries (Abbott & Young, 1989). This trend has become a concern to some European governments and the government of Quebec because of future population aging and population decline. Sociologists have also focused on the types of jobs and the hours of work which women choose to accommodate their domestic responsibilities and to assure adequate care of their children. A second strategy is revealed in studies of immigrant women who have chosen piece work at home so that they can combine paid work and the care of their children (Johnson and Johnson, 1982). However, one consequence of this type of work is that it is low-paid without protective labour laws or fringe benefits.

A third strategy is for both parents to work different shifts, so that one parent is always home to care for the children. Although this tends to eliminate the need to hire a non-family member to care for the children, the marital relationship often suffers because of lack of time together; nor can parents and children go out together as a family (Lero and Kyle, 1990).

A fourth strategy for work/family conflict is to continue to carry a full-time job but to reduce time spent sleeping or in leisure activities. In Michelson's Toronto study (1985), women who worked full-time reported fewer hours spent in sleep and leisure activities than women working part-time or than men reported.

A fifth strategy is for one parent to work part-time while children are preschoolers. This is essentially a women's solution, however, as 88% of part-timers in their prime working years (25-54) are women (Statistics Canada, 1988). The inequalities between the wages and benefits of part-time and full-time workers have been publicized in the past decade since the proportion of part-time workers has increased and unemployment rates have risen.

A sixth strategy for managing work/family conflicts is to choose work which can be obtained or left easily. This enables mothers to leave their jobs and stay at home until their children attend school, and then to re-enter the labour force. Traditionally, women have worked in "pink collar

ghettos", which have allowed them maximum flexibility to move in and out of the labour force. However, studies have shown that women have done this at an economic cost (Armstrong and Armstrong, 1978; 1984). These traditionally "female" jobs tend to be non-unionized, low-paid and involve little or no occupational mobility. Increasingly, moving in and out of the labour force is difficult. In times of high unemployment, employers can easily obtain replacements and women who expect to re-enter the labour force sometimes find that the competition is stiff. Furthermore, educational or skill requirements are continually being raised, and workplace automation is rendering some positions obsolete. In addition, women re-entering the workforce are often expected to start at the bottom of the hierarchy each time they return.

Women are now being encouraged to move into higher-paid "non-traditional" occupations. When they find such work, however, they often discover that union contracts and legislation ensuring maternity leave and leave for family responsibilities do not fully compensate for the problems which arise from having a demanding job and maintaining the responsibility for raising children (Walt, 1989; Willms, 1990).

Studies of policies to alleviate work/family conflict often focus on leave for family-related reasons. These are sometimes negotiated by labour unions and sometimes provided through legislation (Cohen, 1989). Studies have compared Canada's leave policies with those of other countries (Kamerman & Kahn, 1981; Townson, 1988.) Such comparisons usually indicate that Sweden and other Nordic countries are far ahead of Canada in terms of allowing employees to take time off for family responsibilities. Cross-national comparisons also examine government subsidies for child care or the actual provision of services (Gottfried, 1988).

Although Sweden enjoys publicly-funded day care and "generous" parental leave (by Canadian standards), several problems have been noted with the Swedish system (Wolfe, 1989). One is that taxes are very high by North American standards. Secondly, some child psychologists have questioned the wisdom of extensive use of day care centres for young children. Thirdly, men are still less involved than women in child care activities even when paid leave is available. In a Swedish study quoted by Widenberg (1987), for example, only 25% of men eligible for parental leave at the birth of a child took more than one month off compared to 99% of the women. Men did not take their full leave because only one member of the family can be on leave at one time and their wives often preferred to take maximum leave. In other cases, men felt that they couldn't leave their jobs for an extended period of time without negative consequences. The authors of this study were concerned that extended leave for family responsibilities will be used against women employees if it remains an option used mainly by women.

In Sweden, there is still a discrepancy between the average wages of men and women, even with public support for childbearing and childrearing. This suggests that public policies attempting to eliminate work/family conflicts have not been entirely successful in equalizing family or work roles for men and women. Yet in comparison with Canada, Sweden seems to be well ahead.

The Division of Labour Within Families

Sociological research has emphasized that child care and housework are still largely "women's work", even though almost two-thirds of Canadian mothers with young children are now working for pay. Studies have also confirmed that in the same family, two or more child care arrangements are common, even for one child (Lero, Pence, Goelman and Brockman, 1988). New

arrangements need to be made when children are sick, when the caregiver is unavailable, when a parent has to go out of town, when a work shift changes and when the school year ends. All these factors complicate the logistics of parenting and working (Foster, 1989; Luxton & Maroney, 1990).

A recent study, sponsored by the Conference Board of Canada, of 11,000 working Canadians found that women employees reported that they did an average of 16.5 hours of home maintenance work per week, while men reported 9.8 hours (MacBride-King, 1990:9). Although many men indicated that they share responsibility for the care and nurturing of their children, women tended to carry most of the responsibility. Over three-quarters of the women reported that they had the major of responsibility for making child-care arrangements while only 4.1% of men said that they had the major responsibility. Women were also four times more likely to report that they stayed home from work when their children were ill.

The MacBride-King study confirms other research results that mothers tend to be the parent to take their child to the sitter or child care centre and to pick them up in the evening. Employed mothers are also far more likely than fathers to attend school interviews, to assist children with homework and to help organize their social and cultural activities. Furthermore, when child care is provided through parent co-operatives, mothers are more involved than fathers.

When calculating the feasibility of child care arrangements, the mother's place of work and her wages/salary are often the deciding factors (e.g. Peterson & Gerson, 1989; Presser, 1989; Robins, 1988). Children are often taken to a day care closest to the mother's place of work, because she takes the children to day care and picks them up more often than the father. Studies also indicate that this is done even though women have less access to the family car than their husbands do (Michelson, 1985). Despite the fact that child care should be a family concern, the family often considers that day care fees will be taken from the mother's pay. This suggests that if the fees approximate the value of her wages, the couple may feel that it is not worth the cost and aggravation for her to work outside the home.

Child Care Policies

Federal/provincial cost-sharing of child care was initiated in 1966 with the Canada Assistance Plan, but the provision of child care services falls under provincial jurisdiction in Canada. Since the Report of the Royal Commission on the Status of Women in 1970, the shortage of child care services in Canada has been pointed out by several other Task Forces and Parliamentary Committees (Cooke, Edwards, Rose-Lizée & London, 1986). The federal government has increased the number of subsidized child care spaces by about 20% per year throughout the 1980s. Yet, most provinces provide subsidies for only lower-income families and child care is still funded as though it were a welfare service. At the same time, the labour force participation of mothers with young children and the demand for child care services have increased substantially.

When the Mulroney government announced its National Strategy on Child Care in 1987, numerous articles were written about Canadian and other nation's child care policies. Few of these articles were published in sociological journals, however, but rather appeared in feminist, general interest or business magazines and in daily newspapers.

As part of the National Strategy on Child Care, the Mulroney government attempted to take child care out of welfare legislation with *The Canada Child Care Act, Bill C-144*. Opposition to this bill was strong from child care advocacy groups, labour unions, feminist groups, anti-feminist women's groups and provincial governments. These groups criticized the bill for placing a ceiling on funding (which the Canada Assistance Plan does not do), for subsidizing for-profit care, for providing an insufficient number of spaces, for lacking federal objectives for high-quality care, and for omitting the development of national standards.

In 1988, federal income tax deductions for child care were doubled from $2,000 to $4,000 for each child per year for families able to obtain receipts. But at the same time, the federal government made the deduction available only for children under six years of age rather than for school-aged children. A new Child Care Tax Credit was introduced for those who are unable to claim the tax deduction, but the value is only $200 per child per year. A Child Care Initiatives Fund was also established by the federal government, to promote research and demonstration projects but this involves only short-term funding (Lero & Kyle, 1991). Despite these changes to federal child care policies, controversy continues over the adequacy of federal cost-sharing with the provinces, public funding of for-profit day care, the level of financial assistance paid directly to parents, jurisdiction over Native child care and the development of federal child care standards.

Another important policy controversy concerns the wages and qualifications of child care workers. This occupation has been studied by sociologists as a female job ghetto, which requires low entrance qualifications and involves low pay, few benefits and high turnover rates. Studies have noted the educational qualifications and pay of child care workers working in different settings and different provinces. They have emphasized that child care workers are paid less than zoo-keepers, and that some provinces (such as Alberta) have until recently required no qualifications other than a minimum age to work with preschool children (Schom-Moffat, 1984).

Comparisons of salaries and benefits have also been made between kindergarten teachers working within the education system and day care workers hired by day-care centres or family day-care homes. Since both employees may be teaching four-year old children, reasons for salary and qualification discrepancies lie with the history of day care compared to education in North America, the jurisdiction of services, and comparative unionization rates. Child care is still seen as a welfare service, under the jurisdiction of community and social services, while kindergartens are viewed as part of the education system for all children, funded by municipal taxes and provincial grants. While most teachers are unionized, day care workers seldom are.

Cross-national child care comparisons always include a discussion of Sweden, which is usually held up as a positive model. Swedish governments have long recognized the connection between work, social services, family and the quality of children's lives. Swedish family policies are based on the assumption of full employment and economic equality between men and women, and include generous parental leave and benefits as well as extensive child care services. All the studies indicate that Canadian policies are a long way from Swedish ones on parental leave and state-funded child care. In North American, child care is still viewed as a private family affair rather than a social issue. Governments intervene only when families cannot cope (Kamerman & Kahn, 1989).

CONCLUSION

Canadian sociologists have focused on child care as "women's work", both in the marketplace and within the home. The low pay and status granted to day care workers and sitters have been partly explained by the fact that these workers are typically female. In addition, sociologists have noted that women who take on paid employment tend to retain the major responsibility for housework and child care, and are therefore said to work a "double day". Sociologists have argued that child care and housework must be shared between men and women if the economic status of women is to be improved. But affordable and high-quality child care services are also needed, along with expanded leave programs for employees with family responsibilities. Both these changes involve governments and employers recognizing the social value of reproduction.

Research has indicated that commercial daycare programs offer poorer care for children and much worse working conditions for staff than not-for-profit programmes. Some sociologists have suggested that the quality of child care services will improve with community or public ownership and control and with improved pay and working conditions for caregivers.

The rhetoric and strategies used by child care advocates in organizing parents, communities, governments and employers to accept the idea of public child care services rather than commercial care have also been studied (Prentice, 1989). Public day care is still seen as synonymous with socialism in the minds of some policy-makers. Furthermore, the idea that families (i.e. mothers) are responsible for the care of their own children, and that mothers with young children should not work for pay unless they are in serious financial need, are both implicit in present funding policies. The high cost of public child care services, which would involve shifting budget priorities or raising taxes, has been used as a reason for non-expansion of services.

The dichotomy between the private world of family and the public world of work, perpetuated in the North American business world, has been criticized by sociologists as erroneous, outmoded and detrimental to the interests of children and working women (Eichler, 1988; McDaniel, 1990). This myth has been continued despite sociological research which indicates that especially mothers cannot leave their family concerns and responsibilities behind when they come to work unless the system of child care and employment leave is dramatically improved.

In Canada and many other countries, the issues of child care and work/family conflicts have been closely connected with employment policies. Maternity and parental leave and benefits, for example, are available only to those who have been in the labour force for a specified length of time. Only recently have Canadian governments, employers and unions started to strengthen leave policies for family responsibilities and to consider providing child care services for employees. This trend has arisen largely from the rise in women's labour force participation rates, the increased number of women in positions of responsibility, concern about valued female employees leaving for family reasons and the rapid decline in birth rates. All these factors have encouraged governments to view childbearing and childrearing as a social as well as a family responsibility, requiring state and employer support.

Until recently, child care has not been a popular topic of research within the discipline of sociology, perhaps because of the predominance of men in the discipline. Now that the sex ratio is changing, theoretical perspectives are also evolving to accept more issues which women

consider to be important and to allow for a feminist perspective. For these reasons, I am anticipating a growing interest within sociology on child care issues.

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SCHOOL-AGE CHILD CARE: A PRELIMINARY REPORT

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ABSTRACT

The focus of this paper is on on-site school-age child care and the relationship between attendance at on-site after school child care programs and familial, environmental and developmental factors. The findings reported here represent a small portion of a comprehensive study conducted over a three year period by four principal researchers in Montreal and Quebec City. The issues discussed are: (a) the quality of school-based environments (kindergarten and child care); (b) the socio-economic status and size of families of children attending after school child care programs as well as those who return home to mother; (c) the relationship between day care histories and teacher ratings of social behaviour; (d) the social and play behaviours of day care versus home care children; and (e) the degree of communication between kindergarten teachers and child care educators in the on-site after school child care centres.

Taken together, these four projects provide important information about families, children, teachers and educators who are involved in school-based child care. The findings of the Baillargeon, Arenas, Desmarais, & Larouche, (1991), Baillargeon & Betsalel-Presser, (1988), Baillargeon, Gravel, Larouche, & Larouche, M., (1989) study underline the fact that a very select population is using school-based care and the reasons for their selection of this type of care need to be explored. This study also indicates that the quality of the child care and kindergarten environments seems to vary a great deal within and between schools. Children attending child care and kindergarten programs concurrently may be in environments that are consistently high or low in quality, or they may be in disparate arrangements. The effect that these various combinations of arrangements may have on school-age child care attenders is of concern. It is a focus of the study conducted by Baillargeon et al. 1988, 1989, 1991 and it will be addressed in future analysis of the data.

INTRODUCTION

The focus of this paper is on-site school-age child care and the relationship between attendance at on-site after-school child care programs and familial, environmental and developmental factors. The findings reported here represent a small portion of a comprehensive study conducted over a three year period by four principle researchers in Montreal and Quebec City[1]. The issues to be presented are: (a) the quality of school-based environments (kindergarten and child care); (b) the socioeconomic status and size of families of children attending after-school child care programs as well as those who return home to mother; (c) the relationship between day care histories and teacher ratings of social behaviour; (d) the social and play behaviours of day care versus home care children; and (e) the degree of communication between kindergarten teachers and child care educators in the on-site after-school child care centres.

School-age child care programs have been developed to meet the increasing demand for after-school care for children of dual career and single parent families. When these families formed a small percentage of the work force, it was necessary for them to make individual care

arrangements for the hours between the end of the school day and the completion of their own work day. Many depended upon neighbours, members of the extended family or community centre programs, while others permitted their children to return home without supervision. Within the past ten years, new after-school care options have made it possible for families to choose from a broad array of alternatives to self-care. These alternative arrangements include sitter care, centre care within the community, school-based child care, and a variety of multiple, extracurricular activities that serve as "time fillers".

To date, there have been very few studies published which have examined after-school care programs and there is a definite dearth of studies of on-site after-school child care programs. However, in one of the more interesting research projects, Vandell & Corasaniti (1988), compared third grade children in four different types of after-school arrangements: (a) home to mother, (b) latchkey, (c) off-site after-school child care, and (d) sitter care. They found that children attending off-site child care centres received more negative peer nominations, had lower academic grades and had lower standardized test scores than mother-care or latchkey children. Those in sitter care received more negative peer nominations than those in latchkey or mother-care. There were no differences between latchkey and mother-care children in sociometric nominations, academic grades, standardized test scores, conduct grades, self competence and teacher rating.

There are four factors which may have been responsible for the poor findings regarding the child care group (Vandell & Corasaniti, 1988). First, parents who selected child care may have known that their children required adult supervision, thus the day care group may have been distinctly different from the other children prior to their enrolment in the child care program. Secondly, as only 11% of the total sample attended the off-site centre, the day care children were in a minority. This, coupled with the fact that the third grade children had negative attitudes toward day care attendance, may have strongly influenced the results of the study. A fourth factor was the quality of the off-site after-school centres. Vandell & Corasaniti indicated that the quality of the centres in their study was questionable. As most had large numbers of children, a small staff with minimal training, limited age-appropriate activities and were proprietary in style, the school-age attenders could certainly have been as negatively affected as preschool children are by the quality of care (McCartney, Scarr, Phillips, Grajek, & Schwarz, 1982).

The after-school option missing from the Vandell & Corasaniti study is the on-site school-based child care centre. These centres are located on school premises and have hours of operation which may vary in accordance with the needs of the parents. The majority of them have three distinct periods of operation: an early morning session prior to the beginning of formal school classes; a midday period which signals the beginning of the kindergarten child's after-school care (the time when the elementary school-age children join the kindergarten children for lunch); and the end of the elementary school day when the grade school children enter the centre for their after-school care program. Most centres remain open until six-thirty in the evening to accommodate parents' work schedules.

The convenience of this arrangement eliminates the 'organizational' problems commonly associated with the other forms of after-school care. Common problems include transportation to the off-site location, availability of the educator, appropriateness of the program for the age of the children and the coordination of days with activities so that equipment and supplies brought from home correspond to the scheduled extracurricular activity.

The convenience of the arrangement may be a more important factor influencing selection of on-site after-school child care, than selection on the basis of a child requiring more adult supervision after-school. The high visibility and minority issues associated with day care attendance in Vandell & Corasaniti's study may not be important in on-site centres, as many children attend the after-school programs and they are not seen to be visibly different from the other children who leave the classroom at the end of the school day.

The quality of care provided can be an issue no matter what after-school arrangement the child is in. Thus, quality of after-school child care centres and the appropriate tools with which to conduct the assessment of quality are important foci for future research.

The results of the Vandell & Corasaniti study raise a number of questions regarding the relationship of *on-site* after-school child care attendance to children's popularity, social competence, academic achievement and language development. Several other questions arise which were not addressed by Vandell & Corasaniti: Who uses school-age child care? How do school-age centres differ in quality and what is the effect of quality differences on children? How do teachers and child care educators relate to one another? Are their programs complementary or disparate? What are the effects of child care experiences on children's social development? The projects described below attempt to answer these questions and provide insight into the differences which may exist between children who attend after-school child care programs and those who return home to mother at the end of the school day. The studies also represent an exploration into the lives of children who attend child care and kindergarten concurrently, compared with those who have never had any day care experience.

FAMILIAL AND ENVIRONMENTAL FACTORS IN SCHOOL-AGE CHILD CARE

Baillargeon, Arenas, Desmarais, & Larouche (1991) studied the relationship of the quality of kindergarten and child care environments to children's social and language development. In their study, one control variable was socioeconomic status as measured by the Socioeconomic Index of Occupations in Canada (Blishen, Carroll, & Moore, 1987). The independent variables were kindergarten and day care quality measured by the Early Childhood Environmental Rating Scale (ECERS) (Harms & Clifford, 1980), and kindergarten teachers' attitudes assessed via the Problems in School Questionnaire (Deci, Schwartz, Sheinman, & Ryan, 1981). The dependent variables included: oral language assessed using the Preschool Language Scale (Zimmerman, Steiner, & Pond, 1979); written language measured with an instrument developed by Belanger & La Brecque (1984); social development determined by means of the Social Competence Scale (Kohn, Parnes & Rosman, 1972); and peer ratings gathered as an assessment of each child's social status within his/her peer group.

Two groups of subjects were examined: those who attended school-based child care (N=75), and those who went home to mother after school (N=69). Subsequent analyses of demographic information showed that the two groups differed on two family variables-structure (single or two parent families) and size (average number of children per family). There were more single parent families in the day care group (child care = 23%; home = 7%) and there were fewer children per family in the day care population as compared to the home care group (child care X = 1.89; home

X = 2.49). These variables (family structure and size) must be taken into account when analyzing populations of this nature.

Preliminary analyses revealed that the concurrent attendance at kindergarten classes and after-school child care is an interesting phenomenon because the child must cope with two different sets of non-parental adult educators, as well as two potentially different non-familial environments. Rules, regulations and expectations within each environment may be significantly different and the child must be sufficiently flexible to adjust to each one quickly. One would hope that both environments offer high quality care as the quality of a preschool day care environment is positively related to social competence and language development (McCartney, 1984; Phillips, McCartney & Scarr, 1987; Schliecker, White & Jacobs, 1991).

Baillargeon et al. used the ECERS to evaluate the quality of kindergarten and after-school child care centres and their findings revealed interesting results. It would seem that when regulations are in place, a greater percentage of institutions adopt the required standards than when there are few regulations and they are voluntary[2]. An assessment of the quality of 19 of these classroom environments in the Quebec City area indicated that 79% (N=15) of the kindergartens were rated as GOOD; whereas, of the on-site after-school child care centres which had few standardized regulations to adhere to, only 50% (N = 7) were rated as GOOD. This may create a problem for the children who attend a good quality kindergarten for a portion of the day (2 1/2 hours) and move on to the day care setting where they may spend upwards of 6 hours per day. A child who is exposed to inconsistencies between the quality of the kindergarten and child care program may be at risk, as would the child who is in consistently low quality arrangements. However, the child who attends two high quality environments concurrently would be at an advantage.

In light of these preliminary findings, Baillargeon et al. are currently analyzing their data to ascertain the relationship between attending kindergartens and after-school child care centres of varying qualities and children's social and language development and academic skills.

SOCIAL DEVELOPMENT IN SCHOOL-AGE CARE

While Baillargeon et al. have explored social behaviour as related to environmental quality, Adessky and White (1991) have examined the aggressive behaviour of children in kindergarten in relation to their day care history prior to school entry and have conducted a careful scrutiny of family demographic information.

In 1978, Belsky and Steinberg characterized children attending day care as aggressive. Since that time this conclusion has been challenged, though no consensus about the effects of group care on aggressive behaviour has been reached. Investigators have suggested that aggression may be related to quality of child care (Baillargeon & Betsalel-Presser, 1988) or to unclear definitions which confuse aggression and assertion (Vlietstra, 1981), rather than to child care attendance per se.

Adessky and White (1991) set out to examine whether teachers would rate children who were currently attending after-school care as more aggressive than children currently in home care arrangements. These investigators measured quality of current child care environments making use of a modified version of a teacher rating scale developed by Vandell and her colleagues that clearly sampled aggressive rather than assertive behaviours (Vandell &

Corasaniti, 1988). Items included behaviours like: hits, kicks, bites, teases, is defiant, destroys property, fights with others, gets angry easily and bothers others.

In reviewing the background information supplied by parents, it was noted that one difference between school-age care and home care children was their preschool child care arrangements. Children in after-school child care were very likely to have had some preschool day care experience, (usually an average of about two years). Most of these children had not used group care exclusively, many had some combination of sitter, relative, home and group care prior to kindergarten. The concept of a "day care child" as one who enters group care early and remains solely in group care is inaccurate because this situation rarely occurred in this middle class sample. Multi-care backgrounds were more common than the consistent use of sitter, home or group care. Most impressive was the heterogeneity of preschool group experience, even though the quality of these previous experiences was not known. The number of months of group care experienced by children in the Adessky & White's sample ranged from 0 to 57; children experienced from 1 to 3 types of care and changed type of care between 0 and 6 times; children entered group care arrangements anywhere from 5 months to 71 months.

Given such information about the children in this sample, Adessky & White speculated that those children with extensive preschool experience, who had been exposed to multiple settings, and changed type of care many times might be more likely to show aggression than children with less group experience and more stable arrangements. This hypothesis was confirmed for kindergarten girls but not for boys. Boys were rated as more aggressive than girls but the aggression ratings received by boys were not related to past child care arrangements. Girls were, on average, less aggressive, but greater aggression was related to greater time spent in group settings as a preschool child (Adessky & White, 1991).

One interpretation of these results is that girls who spend more time in groups observe more aggressive behaviour in boys and may incorporate such behaviour into their own repertoires. As well, though sex segregation even at early ages is recognized as commonplace, girls in day care centres may find that they must behave in more aggressive ways in order to obtain their share of materials and attention. Finally, it is possible that parents select group care for those girls who are more "outgoing", are able to "hold their own", or are more aggressive. Such interpretations are speculative and require longitudinal research for verification. Nonetheless, they serve to underline the possibility that for girls, day care may be related to the expression of more aggressive behaviour.

In summary, while on average kindergarten children currently attending after-school day care were not rated as more aggressive than home-reared children, greater group experience was related to higher ratings of aggression in girls. It seems possible that greater group experience provides more opportunity for girls to observe aggression and rough and tumble play in boys and may allow them to incorporate these behaviours into their own repertoires. Further longitudinal research is needed to verify such explanations, and to determine if selection of group care is more likely for assertive girls.

SOCIAL COMPETENCE AND SCHOOL-AGE CHILD CARE

Extensive group experience may also have other effects on particular aspects of children's social development. Montpetit and Jacobs (1991) examined peer popularity in the kindergarten

classroom in relationship to the tone of the children's interactions and the complexity of their play styles to determine whether after-school child care attenders were more socially skilled and more popular among their peers in the kindergarten. The hypothesis of this study was that children who attended school-based child care would be more popular on the basis of the amount and quality of their peer group experiences.

Two studies which have looked at the effects of after-school child care on children's peer relations have yielded conflicting results. Howes, Olenick & Der-Kiureghian (1987) found that children who attended after-school child care concurrently with kindergarten were more socially skilled than those who returned home to mother. However, Vandell & Corasaniti (1988) found that third grade children who attended off-site day care centres after-school received more negative peer nominations than those who returned home to their mothers. These conflicting findings can be explained by looking at some of the differences between the studies, i.e., at the ages of the children studied, the quality of the day care environments and the location of the day cares. Howes, Olenick, & Der-Kiureghian, (1987) studied kindergarten children for whom child care attendance did not have negative associations, while Vandell & Corasaniti (1988) examined a group of third graders for whom non-parental group care had negative connotations. Howes et al. looked at good quality after-school care, while Vandell & Corasaniti (1988) studied children who were in "proprietary care". Howes et al.'s subjects attended a school-based child care program, while Vandell et al.'s subjects, who formed a small proportion of their sample, were transported to another location after-school causing them to stand out from the crowd and be noticed for the lack of freedom in their after-school arrangement.

Since children who attend a child care centre after-school have more opportunities to interact with peers, and as participation in a peer group is important in helping children to develop good social skills, one could hypothesize that after-school day care attenders enroled in a high quality program would be more socially skilled than those who return home to their parents at the end of the school day. [Within the child care centres they have the opportunity to play and initiate interactions with their peers, to maintain the interactions and attempt to resolve social problems]. Research findings indicate that children who exhibit positive interactions with their peers tend to be more popular than children who display more negative peer interactions (Coie & Kupersmidt, 1983; McGuire, 1973; Rubin, 1983; Rubin & Daniels-Beirness, 1983). Further, children who have attended day care centres exhibit more positive interactions than those who have not had any day care experience (Field, Masi, Goldstein, & Parl, 1988; Schindler, Moely, & Frank, 1987; Vleitstra, 1981). Thus, one hypothesis of the Montepetit & Jacobs project was that children who attended after-school child care centres would exhibit a more positive tone in their interactions than those who went home to their mother at the end of the school day.

As children who have had day care experience exhibit more complex play styles than children who have never been to day care (Field et al., 1988; Rubenstein & Howes, 1989; Schindler et al., 1987) and, as there is a positive relationship between the display of more complex play styles and popularity (Dodge, 1983; Ladd, 1983; Marshall & McCandless, 1957; Rubin, 1983), the second hypothesis was that children who had more group experience (i.e., those who attended after-school child care centres) would display more complex play styles in the kindergarten and would be more popular than those who went home to their mother after-school.

This study included 63 children ranging in age from 62 to 77 months. Twenty-eight attended after-school child care and 35 returned home to their mother. In this study SES was determined

by the Hollingshead Four Factor Index of Social Status (1975); sociometric status was measured by peer ratings (Asher, Singleton, Linsley, & Hymel, 1979); teacher's perception of the child's self competence was obtained through an adaptation of the Vandell & Corasaniti rating scale (1988); receptive language was measured using a French translation of the Peabody Picture Vocabulary Test (Dunn, 1981); naturalistic observations were gathered according to the Parten/Piaget system to record complexity of play styles and tone of interaction (Smilansky, 1968); and finally, the after-school child care centres were evaluated using an adaptation of the ECERS (Harms & Clifford, 1980). As school-age child care centres deal with older children whose needs are not the same as preschoolers, the environmental rating scale used to measure quality in these centres should reflect these differences if it is to be considered valid. Thus, the School-age Child Care Rating Scale was designed to accomplish this task (Jacobs & White, 1992).

Although the two kindergarten classrooms used in this study were within the "GOOD" range on the ECERS, there were significant differences between the two classrooms to necessitate analyzing each classroom population separately. In School 2 there was a significant difference for peer ratings between the child care attenders (N = 13) and those who went home to mother (N = 21) after-school. The day care group had a significantly higher peer rating than the home care group. The day care children in this school appeared to be far more active in the classroom than the home reared group. They engaged in more functional, constructive and dramatic group play than did the home reared group and they also engaged in more positive and negative interactions with their peers. In School 1 there were no differences in peer ratings between the two groups; however, there was a significant difference between day care (N = 15) and home care (N = 14) children for positive/prosocial behaviour. The more time children had spent in preschool day care the less prosocial was the tone of their interactions. As the results of this study may have been influenced by the small sample size, this team is currently increasing the number of subjects in the sample and will re-analyze these data using the substantially larger sample.

TEACHER/EDUCATOR COMMUNICATION

Previous studies have shown that child care educators in the child care environments make a difference in the social and language development of the preschool-age child (McCartney, 1984; Phillips, McCartney & Scarr, 1987). The after-school care child has two sets of adults tending to his/her developmental needs. As the child is constantly moving between the two environments established by these adults, he/she must adapt to the differences which exist between the two. Communication among the teachers and the educators might facilitate the daily transitions that children must make.

Betsalel-Presser, Joncas, Jacques, Phaneuf, Rivest & Brunet (1991) designed a study in which they explored the communication among kindergarten teachers and child care educators in the schools which offered after-school child care programs. The findings of various studies (Adessky & White, 1991; Baillargeon & Betsalel-Presser, 1988; Betsalel-Presser, Vineberg-Jacobs, Romano-White & Baillargeon, 1988; Betsalel-Presser, Baillargeon, White & Jacobs, 1990) indicate that teachers and child care educators in different settings have preconceived notions about each others' environment, goals, training and programs but did not have any verification of the validity of these notions. These notions create a bias which, in turn,

seem to influence the kindergarten teacher's attitude regarding the day care child's ability to adjust to classroom rules and regulations (Betsalel-Presser, Lavoie & Jacques, 1990).

Betsalel-Presser et al. designed a questionnaire which elicited demographic information related to training and focused on the type of communication which existed between the educator and the teacher. A total of 130 questionnaires were mailed. In all, 61 kindergarten teachers and 65 child care educators responded. They represented 9 school boards in the Montreal area. The majority of respondents in this study were French Canadian females. The age distribution varied widely, with 77% of the child care educators being between 23 and 39 years of age, while 80% of the teachers were between 40 and 56 years of age. Information regarding educational background indicated that 70% of the teachers had a Bachelors and 6% had a Masters Degree. Fifty-three percent (53%) of the child care educators had a special college degree or certificate in Early Childhood Education and 31% had a Bachelors degree.

There was a significant difference between the two groups in terms of experience in the field of Early Childhood Education. Seventy percent (70%) of the child care educators indicated that they had less than 7 years of experience, while 88% of the teachers had between 17 and 36 years of experience. Seventy percent (70%) of the child care educators had been employed at the same school between 3 to 10 years, while 38% of the teachers had spent 12 to 28 years in their school.

The teachers and child care educators responded to questions which were categorized into the following aspects of communication:

1) opportunity to meet with each other
2) content of communications
3) knowledge about children attending both programs
4) knowledge about their counterpart's educational practices
5) sources of information
6) type of relationship
7) level of satisfaction with the present relationship
8) sources of difficulty in establishing lines of communication between the teachers and the child care educators
9) suggestions from kindergarten and school-based child care educators for the improvement of communication.

With reference to the teacher and educator's perceptions about opportunities for planning or meeting informally, there seemed to be a consensus that it was possible to meet before the children's arrival, however, less than 40% met. Communication took place on an informal basis when walking the children from one program to another. This seemed to be a common practice in most of the centres. The data from the questionnaire indicated that both the teachers and educators had similar perceptions about the content of the communication that did occur.

An analysis of these data indicated that the children's behaviour was the main topic of communication for over 65% of the subjects, while the sharing of information gleaned from or imparted to parents was the next most common focus of communication for 35% of the subjects. It should be noted that regulations in school and class were discussed by only 32% of the subjects. Moreover, issues concerning difficulties encountered by the children who attended both programs were the focus of communication for only 30% of the subjects. The most revealing and startling statistic was that 85% of the teachers and educators rarely, if ever, talked about:

- educational approaches used in their classes
- ideas about activities
- program activities that could have been complementary
- room arrangements and materials available
- common interests (books, conferences, etc.).

One would expect that when adults work with the same children in different programs, they would try to learn about children's experiences and behaviour in the other program. However, the results of this questionnaire indicate that only 50% of the teachers and educators were cognizant of the important life events of the children who attended both programs-- birthdays, parties, outings, etc. Seventy-five percent of the subjects knew very little about the specific child's experiences in the complementary program, including information about interactions with peers and adults, difficulties related to the activities and other events that may have had a marked effect on them (conflicts or punishments). In addition, 85% of the teachers and child care educators knew very little about the children's favourite or less preferred activities in the complementary program. Given these findings, it is not surprising that the kindergarten teachers have expressed concern about the fact that the activities they do with the children have already been done with the educator in the child care program. Lack of communication about the curriculum context would most certainly be the source of this problem.

In order to facilitate transitions between the two programs that are attended concurrently by young children, the adults in charge should know about one another's educational practices. However, in this study 85% of the teachers and child care educators indicated that they knew very little about their colleague's educational practices such as:

- what the children are permitted to do
- how they motivate the children
- how they communicate with parents
- how they solve children's conflicts
- their approach with "difficult" children
- their educational goals.

A set of questions within the questionnaire explored the teachers' and educators' perceptions of their working relationships. It was possible to identify three types of relationships with different levels of involvement: a) acquaintance; b) exchange; and c) collaboration. The perceptions of both groups differed with 15% of the teachers and 22% of the educators rating their relationship at the acquaintance level; 60% of the teachers and 42% of the child care educators defined their relationship as being in the exchange category; and 25% of the teachers and 56% of the child care educators rated their relationship as collaborative. When asked who initiated the communication, the large majority expressed that both were responsible.

Seventy-eight percent (78%) of the teachers and 64% of the educators expressed satisfaction with the current relationship. When asked to identify the main obstacles to communication, 77% of the teachers and 61% of the educators indicated that it was their work hours. When asked to list what they would expect to gain from improved communication between teachers and educators, 52% of the teachers and 63% of the educators indicated that they expected to learn

more about each other's settings and programs and 40% of them expressed an interest in having the school principal facilitate the communicative and collaborative process between the teachers and the educators.

The results of this questionnaire illustrate the need to encourage opportunities for teachers and educators to interact with each other so that they may facilitate children's transition from one milieu to another and thereby increase the unique educational value of each program. Both teachers and educators were aware that a lack of knowledge about each other's educational practices and programs could stifle the children's motivation to participate in classroom activities, especially those that were repetitive and routine activities offered in both programs.

One might speculate that the children's adaptation to each program could be improved through better communication and collaboration among the staff by planning complementary and different activities. The questionnaire results showed that teachers and educators recognized the value of communication for purposes of increased program participation and the opportunity to exchange ideas with other adults within the school setting. However, the obstacles to better communication are a real factor and it is essential that those working in the school community recognize the need for child care educators to participate in pedagogical days and/or to have some free time for planning programs along with the teachers. Although child care educators should be recognized as professionals, they are not always treated as such. This may be due to differences in age, training, years of experience between teachers and child care educators and the generally lower valuation of the work of caring for young children.

Based upon the results of this study, a new project was designed to enhance cooperative work among teachers and child care educators. The team offered a program designed to provide opportunities for communication and to improve ways of interacting between teachers and educators and create a better understanding of each other's role.

SUMMARY

Taken together, these four projects provide important information regarding families, children, teachers and educators who are involved in school-based child care. The findings of the Baillargeon et al. study underline the fact that a very select population is using this form of care and the reasons for their selection of this type of care need to be explored. This study also indicates that the quality of the child care and kindergarten environments seems to vary a great deal within and between schools. Children attending child care and kindergarten programs concurrently may be in environments that are consistently high or low in quality or they may be in disparate arrangements. The effect that these various combinations of arrangements may have on school-age child care attenders is of concern. It is a focus of the study conducted by Baillargeon et al. and it will be addressed in future analysis of the data.

The question of what an environmental rating actually means in terms of the relationship of quality of the environment to classroom functioning is another interesting issue. The Montpetit & Jacobs study indicates that although two environments may be rated as 'GOOD' on the Early Childhood Environmental Rating Scale, the behaviours displayed by the children in these classrooms may be quite different. These behaviours (play style and tone of interaction) may be the result of very specific factors, such as the proportion of males in the class or the type of play

equipment within each room, and may not be related to the rating scale items which measure the global environment.

Day care history also appears to be an important factor in children's social development. The results of the Adessky & White study indicate that aggression in girls seems to be related to time spent in preschool day care. While boys were aggressive as well, their aggression was not related to day care attendance. As two of the studies addressed the issue of aggression in children with or without child care experience, further analyses should reveal interesting findings regarding aggression and popularity, likeability and social competence.

The study conducted by Betsalel-Presser et al. indicates that there are substantial differences between those who work in kindergartens and those who work in the child care programs. Age, training and experience are three of the more obvious factors. The extent to which these differences interfere with the kinds of communication between the teachers and the child care educators is under study. Betsalel-Presser et al. are attempting to increase the frequency of interactions between the teachers and child care educators by implementing a program in which interaction is facilitated and communicative approaches are modeled. They are currently analyzing their data to determine the level of success of the program.

The results reported here are preliminary and are based on data from the first two years of a three year project. As the data of these studies continue to be analyzed, more information will be available regarding issues such as social competence, academic achievement, gender related behaviours, quality factors for school-based child care for kindergarten through grade two, and teacher/educator communication.

ENDNOTES

1. This research is funded by the Child Care Initiatives Fund and FCAR (Quebec).

2. In Quebec, classrooms must conform to norms established by the Department of Education.

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TALKING TO CHILDREN: THE EFFECTS OF THE HOME AND THE FAMILY DAY CARE ENVIRONMENT

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ABSTRACT

This study was designed to provide information about the nature of home and family day care environments and how those environments impact on children's language development. Children's own-home and family day care home environments were rated for their level of cognitive stimulation on the *HOME* scale and mother-child and caregiver-child discourse patterns were analyzed for evidence of developmentally facilitative discourse features. The children were tested on the *Expressive One-Word Picture Vocabulary Test* and the *Peabody Picture Vocabulary Test*. Contextual and socio-demographic background information on both the child's family and the caregiver was collected via structured interviews. The data reveal that cognitive stimulation in own-home environments was associated with both expressive and receptive language abilities, while cognitive stimulation in family day care homes was associated only with expressive language. Frequent use of psychological verbs, endophoric references and cognitive demands, in mother, child and caregiver discourse were associated with child language scores. The results are discussed in the context of the interaction of home and family day care influences on language development.

INTRODUCTION

The major focus of this paper is to extend the findings on the effects of home and day care factors on children's language development generated by the Victoria Day Care Research Project (Pence & Goelman, 1982, Goelman & Pence, 1987a, 1987b)[1]. In this first report on the Vancouver Day Care Research Project, the present paper expands on previous research in the area by: (a) focusing exclusively on children in family day care, the most widely used and least researched type of day care in North America; (b) examining the relationships between children's level of language development, the levels of cognitive stimulation, and adult-child discourse patterns in both the home and family day care settings, and (c) examining the degree of continuity and complementarity of cognitive stimulation and language interactions between children's home and family day care environments.

REVIEW OF THE LITERATURE

Most studies of the effects of early childhood settings on child development have focused either on children in nursery schools (Corsaro, 1979; Pellegrini, 1984; Tizard & Hughes, 1984), or in day care centres (Carew, 1980; Cross, Parmenter, Juchnowski & Johnson, 1984; Honig &

Witmer, 1982, 1985; McCartney, 1984; McCartney, Scarr, Phillips, Grajek & Schwarz, 1983; Ruopp, Travers, Glantz & Coelen, 1979; Schwarz, 1983). Relatively few studies have included children in family day care settings (Clarke-Stewart, 1986, 1987; Fosburg, 1981, Goelman, 1986; Goelman & Pence, 1987a, 1987b) and a minority of them has focused on children's language development. Although the majority of preschool children in some form of out-of-home care are in family day care, very little is known about the effects of these settings on young children's language development.

We have argued elsewhere that children's performance on measures of development status must be viewed within the contexts of process and structural features in the child's day care and home settings (Goelman & Pence, 1987a). In the Victoria Day Care Research Project we examined the interrelationship of a number of these features by studying children, parents, and caregivers in licensed day care centers, and licenced and unlicensed family day care homes. Day care factors that were associated with performance on measures of expressive and receptive language development included the type of care, quality of care, level of caregiver training and daily experiences in care. Analyses of own-home factors revealed that maternal levels of education, occupation, and income were also predicted by the children's language scores. The basic pattern appeared to be that children of low income single mothers were disproportionately represented in poorer quality day care settings. The combination of low resource home environments and low quality day care environments appeared to be a potent combination inhibiting the child's language development in the preschool years.

The data pointed to certain associations between such structural features as levels of parental education and income and children's performance on tests of language development. However, as Golden and Burns (1976) have pointed out, it is dangerous to leap from information about family structure to outcome data without consideration of the kinds of process variables that are found in the family setting.

While these findings begin to fill in some gaps in our understanding of the relationship between dynamic and static features in home and family day care settings, a number of questions remain and new ones have been raised. The questions fall into three major categories: 1) the nature of the child's home settings, 2) the nature of the family day care settings, and 3) the nature of the relationship between the home and the family day care settings.

The nature of children's home settings

To extend the findings of the Victoria project, a follow-up a study was undertaken to examine the different types of mediating (or process) variables that might begin to help explain the linkages between some of the socio-demographic data (levels of education and income) and the outcome data.

Some of these process variables might be identified with the help of Caldwell and Bradley's (1979) *Home Observation for Measurement of the Environment* (HOME) which was designed to yield information on the overall level of cognitive stimulation available to the child in the home environment. The HOME scale has been widely used in the assessment of the level of cognitive stimulation in home environments and researchers have reported relationships between HOME scores and children's levels of cognitive development (Bradley & Caldwell, 1976, 1980; Bradley,

Caldwell & Rock, 1988; Carew, 1980; Gottfried & Gottfried, 1984; Lamb, Hwang, Broberg & Bookstein, [in press]).

A second objective of the follow-up study was to collect detailed information about parent-child language interactions. In recent years, child language researchers have increasingly focused on specific aspects of adult-child discourse with particular reference to leave in features that, theoretically, have been linked to the development of literate features of oral discourse and literacy. (See Pellegrini, 1985, for a detailed review of this literature). For example, Torrance and Olson (1984, 1985) have shown that specific features in mother-child discourse, such as the use of psychological verbs (i.e., say, mean, think, intend) appear to orient the child towards a more "literate" awareness of the uses of language to clarify meaning and are associated with early reading ability. A related area of study has been the relationship between aspects of cohesion in oral discourse and literate awareness. Pellegrini (1984) has argued that such awareness is demonstrated by children's use of endophoric, or explicitly linguistic referential markers, as opposed to exophoric, that is, deictic, gestural, or non-linguistic references. A distinct but related area of research has been addressed by Tizard and Hughes (1984) who have focused on the use of "cognitive demands" by mothers and preschool teachers in conversation with young children. These cognitive demands are often in the form of questions (requests for labels, descriptions, recall of events or narratives, explanations, "3R" requests for information related to reading and arithmetic) and place increasingly difficult demands upon the child.

The nature of family day care settings

To both deepen our understanding of the process variables at work in family day care settings and to parallel the kinds of information gathered on the child's own home environment, it was decided to continue our investigation using the HOME scale in the family day care settings. Since family day care is conducted in home environments, the use of the HOME scale would appear to be an appropriate instrument with which to measure the level of cognitive stimulation available to the children in these settings. It would provide a unique opportunity, as far as our reading could tell, to use the *Day Care Home Environment Rating Scale* DCHERS (Harms, Clifford, Padan & Belkin, 1983) and HOME in the same study. It would also throw additional light on the uses of these two instruments as indices of quality in family day care homes.

The question of quality arises not just in regard to the presence of materials and the frequency of activities but also in regard to the nature of the caregiver-child language interactions in the family day care home. The Victoria study and others (e.g., National Day Care Home study, Fosburg, 1981) have indicated that levels of caregiver training and education impact on children's development. The question is, in what ways do caregivers' education and training manifest themselves in daily language interactions with the young children for whom they care? While researchers have devoted a considerable amount of attention to caregiver-child interactions in day care settings, there are limitations to this research. Most of these studies (i.e., Carew, 1980, McCartney, 1984, Honig & Wittmer, 1982, 1985) have focused on children in center-based care, much of it has involved infants and toddlers as opposed to preschoolers (Howes, 1983, Howes & Rubenstein, 1985) and the major questions have focused on involved social interactions between caregivers and children, rather than on the psycholinguistic content of the discourse.

The relationship between home and family day care settings

The data from the Victoria project strongly suggested that the confluence of certain home and day care factors created situations that were advantageous to the development of some children and disadvantageous for others. Some children were in a "best of both worlds situation", that is, they experienced advantaged home environments and higher quality day care environments, while others were in a "worst of both worlds situation", with limited educational and economic resources at home and limited access to quality space, furnishings, materials, and activities in day care. Few studies have examined the interaction of home and day care factors with great precision. Notable exceptions are work conducted by Carew (1980) which focused on children in day care centers, and by Clarke-Stewart (1981) which included children in family day care and other types of care. Heath's (1983) work on children in their preschool and early years focused on their language environments at home and in their elementary school classrooms. Tizard and Hughes (1984) examined language interactions of four year old girls at home and in nursery school settings.

A major focus, therefore, of the Vancouver Day Care Research Project, was to complement and extend the findings yielded by the Victoria project by collecting data on: the levels of cognitive stimulation at home and in family day care; the nature of the adult-child discourse at home and in family day care, the degree of continuity between the home and family day care settings; and, the effects of the degree of continuity on the children's language development.

METHOD

Subjects

Recruitment of caregivers, parents and children in family day care homes was conducted in much the same way as for the Victoria study (Pence & Goelman, 1987). Caregivers in Vancouver and two surrounding suburbs were contacted from lists provided by local licensing authorities, membership lists of local family day care associations and in newspapers and advertisements. Caregivers expressing interest in the project brought it to the attention of the parents of the children for whom they cared. The mean age of the 28 children in the sample was 45 months. The mean length of enrolment in their current arrangements was 20.18 months and the mean length of total time the children had enroled in full-time out-of-home care was 28.6 months. The mean age at which the children had enroled in out-of-home care was 16.46 months. A slightly smaller number of subjects (20) participated in the parent-child and caregiver-child language interactions.

Procedures

The initial point of contact for both parents and caregivers was a structured interview. Subsequently, children were administered the *Peabody Picture Vocabulary Test* (PPVT) (Dunn,

1979) and the *Expressive One-Word Picture Vocabulary Test* (EOWPVT) (Gardner, 1979) on separate occasions in their family day care settings.

Observers completed the DCHERS and the HOME scales on separate two-hour visits to both the family day care and the children's own homes[2]. The language interactions were conducted in the following manner. The children were introduced to two types of toys: finger puppets and "poppoids" which snap together, first at home, and approximately two weeks later in family day care. After introducing the materials to the children and parents/caregivers, the research assistant video-taped the interactions with a portable mini-camera. Sessions with each child lasted approximately 20 minutes to a half hour.

Transcripts of the sessions were coded for the following features. Based on Pellegrini's (1984) taxonomy, endophoric utterances were those that explicitly and linguistically identified the referent ("This is a monster; he is very big"). In exophoric utterances the referent was semantically or visually defined but not linguistically. Psychological verbs include cognitive verbs (e.g., believe, choose, decide), affective verbs (e.g., feel, hope, enjoy), sensory verbs (e.g., hear, listen, watch), and linguistic verbs (e.g., ask, call, read, talk) (Torrance & Olson, 1984, 1985). Verbs not coded into these categories were coded as "other" and were seen (since every sentence includes at least one verb) as a general index of volume of talk. Following Tizard and Hughes (1984), questions were coded as one of the following types of cognitive demands: labelling ("What is this called?"); describing ("Which piece is longer?"); recalling ("When did we last go to grandma's?"); explaining ("What do you mean? What will happen if we do that?"); request for knowledge ("What day is today?"). The coding scheme is described in detail in Goelman (1986- manual). The transcripts were analyzed using a customized version of a computer program known as *Systematic Analysis of Language Transcripts* (Miller & Chapman, 1985).

RESULTS

In this section, information about the child's own-home environment is presented first, followed by information about the family day care homes and the continuity between the own-home and the family day care home settings.

The Child's Own Home

Means for the HOME total score and sub-scales are presented in Table 1. It should be noted that since the HOME is scored on "yes/no" basis, indicating whether the target interaction was observed or not, the means reflect the percentage of homes in the sample in which the targeted events were observed. Note that there were no episodes of physical punishment (i.e., 0%) observed in any of the own-home or family day care settings. For this reason the sub-scale on physical punishment was not included in any of the subsequent analyses.

Table 1.

SUB-SCALE AND TOTAL MEANS OF *HOME OBSERVATION FOR MEASUREMENT OF THE ENVIRONMENT* SCALE IN CHILDREN'S OWN HOMES

***Home Observation for Measurement of the Environment*†**	**Mean % Responding "Yes"**	**Standard Deviation**
Stimulation through Toys, Games & Reading materials	83.46	20.94
Language Stimulation	99.40	3.15
Physical Environment	86.64	21.97
Pride, Affection	83.50	15.09
Stimulation of Academic Behaviour	100.00	0.00
Social Maturity	73.21	25.39
Variety of Stimulation	68.75	20.86
TOTAL SCORE	87.74	10.13

† Subscale 8 (Physical Punishment) not included, as no incidents of physical punishment were observed.

As indicated in Table 2, the *Peabody Picture Vocabulary Test* (M = 102.16; SD = 11.5) correlated with the Total HOME score as well as with the sub-scales on Physical Environment and Toys, games and Reading Materials. The *Expressive One-Word Picture Vocabulary Test* (M = 112.96; SD = 16.0) also correlated significantly with the sub-scale on Toys, Games and Reading Materials and approached significance in its correlations with Physical Environment (P <.06) and the Total Score (P <.07).

Table 2.

CORRELATIONS BETWEEN OWN *HOME OBSERVATION FOR MEASUREMENT OF THE ENVIRONMENT* SCALE AND *EXPRESSIVE ONE-WORD PICTURE VOCABULARY TEST* AND *PEABODY PICTURE VOCABULARY TEST* SCORES

Home Observation for Measurement of the Environment†	Expressive One-Word Picture Vocabulary Test	Peabody Picture Vocabulary Test
Toys, Games, Reading	.36‡	.37‡
Language Stimulation	.00	-.03
Physical Environment	.29	.30‡
Pride, Affection	-.06	.01
Academic Behaviour	.16	-.06
Social Maturity	.19	.15
Variety of Stimulation	.01	-.05
TOTAL SCORE	.29	.30‡

† Subscale 8 (Physical Punishment) not included, as no incidents of physical punishment were observed.
‡$p < 0.05$

In an attempt to identify those aspects of the children's home environments that were most strongly associated with their performance on the measures of expressive and receptive language development a sequence of factor and correlational analyses were conducted. Drawing on both the parent interview and the HOME scale, data entered into the factor analysis included information about household income, maternal education (years of schooling), maternal work status (Blishen occupation level and hours at work per week), home environment (HOME total score, household size), and degree of social support available to the family (distance to their nearest relative, how long the family had lived at their current address, how long they had lived in the greater Vancouver area). Means and standard deviations for each factor are found in Table 3.

Table 3.

FACTORS ENTERED INTO HOME RESOURCES FACTOR ANALYSIS MEANS AND STANDARD DEVIATIONS

	Means	Standard Deviations
Household income	$43,875.00	$21,615.00
Maternal years of schooling	14.95	2.38
Maternal Blishen occupation level	56.45	13.18
Maternal work hours (per week)	32.58	9.68
Home Observation for Measurement of the Environment Score	88.97	8.25
Household size (members)	3.29	0.80
Distance to nearest relative (miles)	42.83	37.64
How long at current address (years)	2.83	2.11
How long in Greater Vancouver (years)	17.33	16.80

The factor analysis identified one primary factor that included the following four variables (with factor loadings in parentheses): maternal years of schooling (.82); household income (.56); maternal Blishen occupation level (.86); years at current address (.65). This combined factor score (identified as Home Resources), correlated with both the EOWPVT ($r = .45$, $p < .01$) and the PPVT ($r = .54$, $p < .003$).

Data analyses of the mothers' talk and the child's talk were conducted separately. In the mothers' talk (See Table 4a) features related to both cohesion and total amount of language were positively related to children's test scores. The frequency of endophoric references and "other" (non-psychological) verbs were positively related to performance on the EOWPVT and the PPVT. In addition, the frequency of psychological verbs in the mother-child talk was positively correlated with the children's test scores on the PPVT.

Table 4a.

CORRELATIONS BETWEEN PARENT TO CHILD TALK AND CHILD *EXPRESSIVE ONE-WORD PICTURE VOCABULARY TEST* AND *PEABODY PICTURE VOCABULARY TEST* SCORES

	Expressive One-Word Picture Vocabulary Test	**Peabody Picture Vocabulary Test**
Endophora	.25†	.22†
Psychological Verbs	.17	.39§
Other Verbs	.32‡	.40§
Labelling Demands	.00	-.07
Describing Demands	-.10	-.01
Recall Demands	-.04	-.06
Explanation Demands	-.21	-.01
"3R" Demands	-.09	-.07

† $p < .05$ ‡ $p < .01$ § $p < .001$

A number of discourse features in the child's own talk (see Table 4b) correlated with their performance on the language measures. The frequency of use of psychological verbs was correlated with scores on the EOWPVT and the PPVT. It is interesting to note that while none of the cognitive demands in the mothers' talk were related to the childrens' test scores, all of the demands in the childrens' talk were related to their performance on the EOWPVT.

Table 4b.

CORRELATIONS BETWEEN PARENT TO CHILD TALK AND CHILD *EXPRESSIVE ONE-WORD PICTURE VOCABULARY TEST* AND *PEABODY PICTURE VOCABULARY TEST* SCORES

	Expressive One-Word Picture Vocabulary Test	**Peabody Picture Vocabulary Test**
Endophora	.16	.11
Psychological Verbs	.37‡	.41§
Other Verbs	.13	.05
Labelling Demands	.33‡	.10
Describing Demands	.13†	.01
Recall Demands	.27†	-.13
Explanation Demands	.25†	.05
"3R" Demands	.23	-.13

† $p < .05$ ‡ $p < .01$ § $p < .001$

Family Day Care Homes

Total and sub-scale means for the HOME Scale are found in Table 5. As indicated in Table 6, the HOME Total Score and the sub-scale on Toys, Games and Reading Materials both correlated significantly with the EOWPVT. The correlations between the PPVT and the Total Score ($r=.24$, $p<.10$), Variety of Stimulation (.27, .08) and Toys, Games and Reading Materials (.23, .11) approached, but did not reach significance.

Table 5.

SUB-SCALE AND TOTAL MEANS OF *HOME OBSERVATION MEASUREMENT OF THE ENVIRONMENT* SCALE IN FAMILY DAY CARE HOMES

Family Day Care *Home Observation Measurement of the Environment*†	**Mean % Responding "Yes"**	**Standard Deviation**
Stimulation Through Toys, Games & Reading Materials	89.89	16.50
Language Stimulation	97.50	8.42
Physical Environment	99.03	3.81
Pride, Affection	95.47	10.37
Stimulation of Academic Behaviour	98.12	7.80
Social Maturity	78.12	35.78
Variety of Stimulation	68.75	20.86
TOTAL SCORE	94.02	7.09

† Subscale 8 (Physical Punishment) not included, as no incidents of physical punishment were observed.

Table 6.

CORRELATIONS BETWEEN FAMILY DAY CARE *HOME OBSERVATION MEASUREMENT OF THE ENVIRONMENT* SCALE AND *EXPRESSIVE ONE-WORD PICTURE VOCABULARY TEST* AND *PEABODY PICTURE VOCABULARY TEST* SCORES

Family Day Care *Home Observation Measurement of the Environment*♦	**Expressive One Word Picture Vocabulary Test**	**Peabody Picture Vocabulary Test**
Stimulation Through Toys, Games & Reading Materials	.39‡	.23
Language Stimulation	.21	.26
Physical Environment	-.01	-.03
Pride, Affection	.07	.04
Stimulation of Academic Behaviour	.14	-.16
Social Maturity	.08	.11
Variety of Stimulation	.17	.27
TOTAL SCORE	.033‡	.24

† Subscale 8 (Physical Punishment) not included. No incidents of physical punishment were observed.
‡ $p < .05$

Total and sub-scale means for the DCHERS Scale are found in Table 7. As indicated in Table 8, while the DCHERS Total Score and the sub-scales on Furnishings, Language Development, Learning Activities, and Social Development all correlated significantly with the EOWPVT, none of the DCHERS scores were associated with performance on the PPVT.

Table 7.

SUB-SCALE AND TOTAL MEANS AND STANDARD DEVIATIONS ON *DAY CARE HOME ENVIRONMENT RATING SCALE*

	Mean	Standard Deviation
Furnishings	4.96	1.23
Language Development	5.59	1.32
Learning Activities	4.75	0.90
Social Development	5.90	1.26
TOTAL SCORE	5.30	1.17

Table 8.

CORRELATIONS BETWEEN FAMILY DAY CARE *DAY CARE HOME ENVIRONMENT RATING SCALE* AND *EXPRESSIVE ONE-WORD PICTURE VOCABULARY TEST* AND *PEABODY PICTURE VOCABULARY TEST* SCORES

	Expressive One-Word Picture Vocabulary Test	Peabody Picture Vocabulary Test
Furnishings	.32†	.18
Language Development	.32†	.15
Learning Activities	.30†	.14
Social Development	.00	-.05
TOTAL SCORE	.32†	.16

† $p < .05$

In an attempt to examine the relationships between the two measures of family day care quality, correlational analyses were conducted on the total and sub-scales of the HOME and DCHERS. As indicated in Table 9, the total scores on the two scales correlated positively. In addition, the total scores of each scale correlated with specific sub-scales of the other. For example, the DCHERS total score correlated with HOME sub-scales on Toys, Games and Reading Materials and Academic Stimulation. Similarily, the HOME total correlated positively with DCHERS sub-scales on Furnishings, Language Development, Learning Activities, and Social Development.

In addition, the Academic Stimulation sub-scale of the HOME correlated significantly with DCHERS sub-scales on Furnishings, Language Development, and Learning Activities.

Table 9.

CORRELATIONS BETWEEN FAMILY DAY CARE *DAY CARE HOME ENVIRONMENT RATING SCALE* AND FAMILY DAY CARE *HOME OBSERVATION FOR MEASUREMENT OF THE ENVIRONMENT*

Family Day Care Home Observation for Measurement of the Environment♦	Furnishing	Language Development	Learning Activities	Social Development	Total
Toys, Games, Reading	.49‡	.60‡	.84§	.35†	.41‡
Language Stimulation	.27	.32†	.62§	.22	.19
Physical Environment	.31†	.16	.04	.27	.26
Pride, Affection	.30†	.04†	.12	.34†	.16
Academic Stimulation	.41‡	.39‡	.48‡	-.05	.31‡
Social Maturity	.33‡	.30‡	.46‡	.40‡	.17
Variety of Stimulation	.26	.19	.45‡	.18	-.07
TOTAL SCORE	.57§	.51§	.83‡	.45‡	.34‡

♦ Subscale 8 (Physical Punishment) not included, as no incidents of physical punishment were observed.
† $p < .05$ ‡ $p < .01$ § $p < .001$

A number of interesting consistencies were revealed in the mother-child talk and the caregiver-child talk and in their respective correlations with the focal child's performance on the langauge measures. As in the mothers' talk, the frequency of endophoric references and "other verbs" in the caregivers' talk were positively correlated with the EOWPVT and the PPVT test scores. (See Table 10a).

Table 10a.

CORRELATIONS BETWEEN CAREGIVER TO CHILD TALK AND CHILD *EXPRESSIVE ONE-WORD PICTURE VOCABULARY TEST* AND *PEABODY PICTURE VOCABULARY TEST* SCORES

	Expressive One-Word Picture Vocabulary Test	**Peabody Picture Vocabulary Test**
Endophora	.49‡	.52‡
Psychological Verbs	.09	.01
Other Verbs	.51‡	.47§
Labelling Demands	-.03	.37
Describing Demands	.08	-.09
Recall Demands	.22	-.25
Explanation Demands	.04	.12
"3R" Demands	-.07	-.03

† $p < .05$ ‡ $p < .01$ § $p < .001$

In the child-caregiver talk (Table 10b), a similar pattern emerged in which discourse features thought to facilitate language development were positively correlated with test performance. Frequency of labelling demands as correlated with both EOWPVT and PPVT scores. The frequency of endophoric references and psychological verbs correlated significantly with the EOWPVT.

Table 10b.

CORRELATIONS BETWEEN CAREGIVER TO CHILD TALK AND CHILD *EXPRESSIVE ONE-WORD PICTURE VOCABULARY TEST* AND *PEABODY PICTURE VOCABULARY TEST* SCORES

	Expressive One-Word Picture Vocabulary Test	Peabody Picture Vocabulary Test
Endophora	.52‡	.17
Psychological Verbs	.43†	.19
Other Verbs	.28	.02
Labelling Demands	.81§	.48‡
Describing Demands	.00	.01
Recall Demands	.00	.00
Explanation Demands	-.05†	-.175
"3R" Demands	.00	.00

† $p < .05$ ‡ $p < .01$ § $p < .001$

Continuity Between Family Day Care and the Child's Home

Correlations between the HOME scores in the child's home and his/her family day care home suggest certain continuities between the two settings, particularly in the areas of stimulation and physical environments. As indicated in Table 11, the Total HOME score and the Variety of Stimulation sub-scale in the child's own home correlated with the sub-scale on Physical Environment in the family day care home. Physical Environment in the child's own home correlated with Social Maturity in the FDC home and with Physical Environment in the FDC home. The sub-scale on Variety of Stimulation in the child's own home also correlated with the sub-scale on Academic Stimulation in the FDC home, while the sub-scale on Toys, Games, and Reading Materials in the child's own home correlated negatively with the Variety of Stimulation subscale in the FDC home.

Table 11.

CORRELATION BETWEEN FAMILY DAY CARE *HOME OBSERVATION FOR MEASUREMENT OF THE ENVIRONMENT* AND OWN-HOME *HOME OBSERVATION FOR MEASUREMENT OF THE ENVIRONMENT* SCALE

	Family Day Care *Home Observation for Measurement of the Environment*							
Own Home	**Toys, Games Reading**	**Language Stimulation**	**Physical Environment**	**Pride, Affection**	**Academic Stimulation**	**Social Maturity**	**Variety of Stimulation**	**Total**
Toys, Games, Reading Material	.003	.08	.11	-.02	-.08	.10	.34†	.04
Language Stimulation	.17	-.06	-.03	-.09	-.05	-.11	-.18	-.02
Physical Environment	.17	.06	.51‡		.24	.35†	-.25	
Pride, Affection	.20	.13		.20	.21	.13	.22	.20
Academic Stimulation	.23	.16	.15	.05	.12	-.09	.21	
Social Maturity	-.03	-.18	.53‡	.19		.11	.08	.25
Variety of Stimulation	.25	.09	.17	-.15	.24	.16	.13	
			.41‡	-.03	.48‡			.30†
								.007
								.25
Total Score	.18	.09	.37†	.05	.20	.25	-.13	.16

♦ Subscale 8 (Physical Punishment) not included. No incidents of physical punishment were observed.

† $p < .05$ ‡ $p < .01$ § $p < .001$

Although the DCHERS was conducted only in the family day care homes, as a measure of structural quality of these settings, correctional analyses were conducted between the DCHE2RS and the HOME scores from the children's own home environments. As indicated in Table 12, a number of significant correlations were revealed. Total scores on the DCHERS correlated with Toys, Games and Reading Materials, Physical Environment Pride and Affect, Variety of Stimulation. Conversely, total HOME scores on the children's home environments correlated with the DCHERS Total score as well as with the sub-scales on Furnishings, Language Development, Learning Activities, and Social Development. The DCHERS sub-scale on Language Development correlated significantly with the HOME sub-scales on Language Stimulation and Variety of Stimulation.

Table 12.

CORRELATIONS BETWEEN FAMILY DAY CARE *DAY CARE HOME ENVIRONMENT RATING SCALE* AND OWN-HOME *HOME OBSERVATION FOR MEASUREMENT OF THE ENVIRONMENT* SCALE

Home Observation for Measurement of the Environment ♦	**Furnish-ings**	**Lang-uage Develop-ment**	**Learning Activities**	**Social Develop-ment**	**Total**
Toys,Games, Reading	.20	.21	.06	.17	.38‡
Language Stimulation	-.04 .50§	.24	? .16	.14	.24
Physical Environment	.56§	.37† .34†	.36	.24	.53‡
Pride, Affection	.17	.16	.12	.31	.36†
Academic Stimulation	.37 .57†	.25 .39‡	.12 .28	-.08	.15
Social Maturity				-.01	.24
Variety of Stimulation				-.06	.41‡
TOTAL SCORE	.58§	.45§	.41†	.26	.57§

♦ Subscale 8 (Physical Punishment) not included. No incidents of physical punishment were observed.

† $p < .05$ ‡ $p < .01$ § $p < .001$

Analyses of mothers' and caregivers' utterances to children revealed a number of significant positive correlations in the frequency of cognitive demands addressed to the children. As indicated in Table 13, maternal requests for labels correlated with caregiver requests for labels. Maternal requests for descriptions correlated with caregiver requests for explanations and labels. Maternal requests for "3R" information correlated with caregiver requests for descriptions. Caregiver requests for labels correlated with maternal requests for both explanations and "3R" questions. Further caregiver requests for descriptions also correlated with maternal requests for knowledge from the children.

Table 13.

CORRELATION BETWEEN PARENT TO CHILD TALK AND CAREGIVER TO CHILD TALK

Caregiver-Child Talk	Parent-Child Talk						
	Endophora	**Psychological Verbs**	**Label**	**Describe**	**Recall**	**Explain**	**"3R"**
Endophora	.02	-.23	.07	-.05	-.25	-.19	-.30
Psychological Verb	.17	.18	.09	-.22	-.25	.35	-.16
Label	.22	.02	.48‡	.34	.44‡	.41†	.55‡
Describe	-.25	.14	-.15	.02	.04	.13	.36†
Recall	.04	-.24	-.35	-.32	.00	-.04	-.28
Explain	-.11	.28	.14	.33	-.28	.11	.01
"3R"	-.24	-.37	.12	.09	.10	.01	.00

† $p < .05$ ‡ $p < .01$

DISCUSSION

The results reported above (See Table 14 for a summary of the findings) serve to both confirm and extend the findings generated by the Victoria Day Care Research Project and other inquiries in this area. The study also begins to provide some additional detail about the levels of cognitive stimulation in general and the nature of the language interactions in particular. The findings from the own-home HOME scale reveal that the general level of cognitive stimulation, the physical environment and the presence of toys, games and reading materials were all associated with the child's language scores. The data suggest that these factors might be more closely associated with receptive than expressive language.

The nature of mother-child language interactions were also linked to outcomes on the language measures. This general pattern is consistent with Clarke-Stewart's (1988) observation that research has indicated "significant correlations between children's language gain and mothers' verbal input" (p. 63). In our study three factors emerged in the mothers' talk: the amount of talk, the frequency of endophoric reference, and the frequency of psychological verbs. The amount of talk can be taken as an overall measure of language input and stimulation to the child. However, as Clarke-Stewart (1988) has pointed out "more motherese is not necessarily better" (p. 63); it is not just the increased amount of talk which appears to be important but the style and content of that talk as well.

The frequency of endophoric references indicates that language use tends to be explicit and self-referential. That is, as Pellegrini (1984) argues, language use is characterized by explicit linguistic identification of objects and assignment of roles in dramatic play. While including under the rubric of "endophoric" both "anaphoric" (forward referential) and "cataphoric" (backwards referential), these utterances demand a high level of attention paid to the discourse by one's conversational partner. The frequency of endophoric reference strongly implies a

discourse pattern which is based upon clarity of meaning, clarity of reference, successful comprehension and accurate expression of one's intentions.

The frequency of psychological verbs suggests another aspect of conversational competence and precision. The use of these verbs implies a certain level of meta-linguistic awareness in that the child appears to be differentiating between that which is explicitly stated (what is said) and that which is intended by the utterance (what is meant). For example, the growing awareness and appreciation of sarcasm, linguistically based "knock-knock" jokes and puns, demonstrates that children at this age are receptive to language forms which interrogate their conventional understandings of word meanings, word boundaries, and sentence structures. This greater attention to language forms per se, Olson (1977) has argued, demonstrates a significant departure in the child's understanding on the uses of language and the locus of meaning in discourse. One question is whether a relationship exists between these understandings about language and the development of literacy in young children. Torrance and Olson (1984, 1985) and Pellegrini, Cox and Galda (in submission) answer this question in the affirmative.

A further question which has been raised is whether these features can be identified in mother-child discourse in the preschool years. The answer to this question seems to be in the affirmative as well. Children's use of psychological verbs was also found to be correlated with their levels of expressive and receptive language abilities. It was not just their mothers' tendency to use psychological verbs but also the children's adoption of this style of talk which contributed to their level of language development.

Table 14.

SUMMARY OF CORRELATIONS

Own Home	***Peabody Picture Vocabulary Test***	***Expressive One-Word Picture Vocabulary Test***
Home Observation for Measurement of the Environment	Total Home Toys, Games, Reading, Physical Environment	____ Toys, Games, Reading ____
Mother Talk	Endophoric Other Verbs Psychological Verbs	Endophoric Other Verbs ____
Child-Mother Talk	Psychological Verbs	Psychological Verbs Labelling Demands Recall Demands Describing Demands Explanation Demands "3R" Demands
Family Day Care Home	***Peabody Picture Vocabulary Test***	***Expressive One-Word Picture Vocabulary Test***
Family Day Care Home	____ ____	Total Toys, Games, Reading
Day Care Home Environment Rating Scale	____ ____ ____	Total Furnishings Language Development

	____ ____	Learning Activities Social Development
Caregiver Talk	Endophoric Other Verbs	Endophoric Other Verbs
Child-Caregiver Talk	Labelling Demands	Labelling Demands Endophoric Psychological Verbs

The frequency of children's cognitive demands also correlated with their scores on the EOWPVT. This pattern suggests childrens' interest in and attempts to elicit certain kinds of information from their mothers during free play situations. This finding adds to our knowledge on the use of cognitive demands in two ways. First, Tizard and Hughes (1984) collected data only on mothers' and teachers' use of cognitive demands but did not collect data on the children's own use of cognitive demands. Second, it is interesting in this light to note that it was the frequency of cognitive demands in the child's language, not the mother's language, which correlated with their scores on the EOWPVT. Our results suggest that home environments, levels of socio-demographic status, levels of cognitive stimulation, and types of parent-child discourse all contribute to the child's level of language development.

What kind of features in the child's family day care environment affect the child, and in what ways do those features interact with those from the child's own home? The two measures of quality in the family day care homes, the DCHERS and the HOME scales, were largely consistent with one another. Overall, there were numerous correlations between the total and sub-scale scores on the two instruments. These data suggest that in environments identified by the DCHERS as being of somewhat higher "structural" quality, there is a greater frequency of the kinds of developmentally facilitative activities or "process" variables in which the children engage. This suggests that the use of both instruments in the study of family day care can provide a fuller, more complete picture of the quality of these settings.

In examining the relationships between the HOME and DCHERS scales and the outcome measures, a number of issues stand out. First, consistent with the HOME scores from the child own-home, the total and sub-scale scores for Toys, Games and Reading Materials are linked to child language development. Thus, there appears to be a certain level of consistency in the overall levels of cognitive stimulation available to the child at home and in the family day care. Second, the total and sub-scale scores from the DCHERS are identical to those of the family day care HOME scores. Not only do the two scales correlate highly with each other; they both correlate highly with expressive language development.

The third finding which stood out was the fact that both the HOME and the DCHERS correlated only with the measure of expressive language and not at all with the measure of receptive language. This pattern caught our attention because, first, the PPVT and the EOWPVT correlated so highly with each other ($r = .73$, $p < .001$), and, second, because the own-home HOME scale correlated with both measures. Caregiver talk (endophoric references and psychological verbs) correlated with both expressive and receptive language while only one feature of child-caregiver talk (labelling demands), correlated with receptive language and three features of child-caregiver talk (labelling demands, endophoric references, psychological verbs), correlated with expressive language.

Taken together, these results suggest that home environments are more closely associated with both expressive and receptive language development, while family day care environments appear to be more closely linked with expressive, rather than receptive, language development. It appears that for the children in our sample (mean age

= 45 months), receptive language abilities were well-established by their home environments. On the average, these children had begun attending their current family day care setting when they were about two years of age, by which time their ability to comprehend and to learn language were given a strong foundation by their home environments. It appears then, that these children began care at approximately the age when children begin to make the transition from one-word utterances to two-word utterances and then subsequently, as three year olds, to begin to create more semantically and syntactically complex sentence structures.

The development of these aspects of expressive language is likely contingent upon facilitative adult input and modelling. The data suggest that this modelling is provided both at home as well as in the family day care setting. As in the mother-child talk, the caregiver-child talk is strongly associated with the child's level of language development. Further, there is similarity, consistency and, we would argue, complementarity and a mutually reinforcing dynamic in that the amount of talk and frequency of endophoric references at home and in family day care provide the child with enriched and facilitative language environments in both settings. The basic pattern, then, suggests that home environments provide the solid foundation in both expressive and receptive language development. The family day care environments, precisely because they are consistent in style and content with that of the child's home, continue to build on the basis in receptive language and provide a supportive environment for the continuing growth and development of expressive language.

The increasing numbers of children who are being cared for in family day care settings are exposed to the dual influences of both their own home environments and their family day care settings. Instead of trying to separate or isolate these two sources of influence from each other, our approach has been to try to assess the ways in which home and day care features together impact upon the child. The data reported in this paper suggest that both levels of cognitive stimulation and features of adult-child language interactions in both environments contribute to childrens' level of language development. Useful follow-ups to this work would be to conduct longitudinal studies to track children's subsequent success in their public school years, particularly in the areas of language growth and proficiency in reading. While these results suggest the mutual contributions of home and day care settings on children's language development, further work on children's emotional and social development would continue to inform our knowledge base on the interplay of home and family day care dynamics on young children.

ENDNOTES

1. The research reported in this paper was supported by a grant from the Social Sciences and Humanities Research Council of Canada. The authors gratefully acknowledge the assistance of Robin White and Warren Weir in the collection and analysis of the data for this project.

2. The DCHERS consists of 33 discrete items clustered into six sub-scales (Furnishings, Basic Care, Language Development, Learning Activities, Activities, Social Development, Adult Needs) which combine to yield a total score. Each item is ranked from 1 (Inadequate) to 7 (Excellent). The preschool version of the HOME scale consists of 55 discrete items clustered into eight sub-scales (Stimulation Through Toys, Games and Reading Materials, Language Stimulation, Physical Environment, Pride, Affection, and Warmth, Stimulation of Academic Behaviour, Modelling and Encouragement of Social Maturity, Variety of Stimulation and Physical Punishment). The Observers code each item on a binary (yes/no) scale indicating whether the specific interaction occurred during the observer's visit.

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THE EFFECT OF PRICE ON THE CHOICE OF CHILD CARE ARRANGEMENTS

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ABSTRACT

Different types of child care are relatively close substitutes for one another. Accordingly, we would expect own-price and the price of substitutes to have a significant influence on demand for each type of child care arrangement. The importance of child care prices is similarly reflected in the design of the main components of federal and provincial child care policy, all of which are intended to reduce the price of approved types of child care for eligible families.

For various reasons, however, it has been difficult to estimate the responsiveness of child care demand to changes in price. One factor has been the absence of current, comprehensive data; this has recently been remedied with the 1988 National Child Care Survey. Even more important, however, has been the difficulty of determining the price of child care arrangements families decide not to use. Surveys regularly collect detailed information about the price and other attributes of the arrangement chosen by each family. Despite the evident relevance of the price, quality and convenience of potential substitutes, data on these variables is rarely collected from each family.

Studies considering the demand for different types of child care arrangements conditional on mother's employment have used alternative methods of determining the set of relative prices faced by each family. This paper builds upon the methods of Hofferth and Wissoker in devising a method of constructing price variables. These methods receive preliminary testing in an analysis of the demand for different types of child care for preschool children by families with employed mothers in Ontario in 1988. We use a multinominal logit selection correction technique which is more appropriate for these kinds of models. The results demonstrate that the demand for child care is sensitive to the price charged. Simulations of the effect of price and income changes on a typical family are presented and discussed. The results should be considered to be work in process.

INTRODUCTION

Different types of child care are relatively close substitutes for one another. Accordingly, we would expect own-price and the price of substitutes to have a significant influence on the demand for each type of child care arrangement. The importance of child care prices is similarly reflected in the design of the main components of federal and provincial child care policy, all of which are intended to reduce the price of approved types of child care for eligible families (direct operating grants to day care centres and regulated family day care homes, subsidies to low-income families to reduce the price of the same two forms of care, and the Child Care Expense Deduction).

For various reasons, however, it has been difficult to estimate the responsiveness of child care demand to changes in price. One factor has been the absence of current, comprehensive data; this has recently been remedied with the 1988 *National Child Care Survey*. Even more important, however, has been the difficulty of determining the price of child care arrangements families decide not to use. Surveys regularly collect detailed information about the price and other attributes of the arrangement chosen by each family. Despite the evident relevance of the price,

quality and convenience of potential substitutes, data on these variables is rarely collected from each family.

Studies considering the demand for different types of child care arrangements conditional on mother's employment have used alternative methods of determining the set of relative prices faced by each family. Yaeger (1978) collected her own data from municipal union workers in New York City. Her survey explicitly asked respondents to estimate the approximate price (and other attributes) of the main types of child care arrangement not chosen by the family. These estimates were used directly in a logit analysis of child care choice.

Cleveland (1990), using a 1976 data set for Metropolitan Toronto, devised a rule to determine eligibility for day care subsidy and the availability of free care from a live-in relative. Other families were assigned the mean price of users for each child in the family in each age category. Variation in the ages and numbers of children in families created a dispersion of prices across the data set. These prices were used in a logit model of child care choice.

Hofferth and Wissoker (1990) analyze the demand for child care arrangements of mothers, 20-27 years of age, using the *National Longitudinal Study of Youth* for 1985 in the United States. They regress price per hour of child care on the characteristics of families choosing each type of care. These regressions are corrected for sample selection using a series of probits. Predicted prices are used in a logit analysis of choice of child care arrangements.

This paper builds upon the methods of Hofferth and Wissoker in devising a method of constructing price variables. These methods receive preliminary testing in an analysis of the demand for different types of child care for preschool children by families with employed mothers in Ontario in 1988. We use a multinominal logit selection correction technique which is more appropriate for these kinds of models. The results demonstrate that the demand for child care is sensitive to the price charged. Simulations of the effect of price and income changes on a typical family are presented and discussed. The results should be considered as work in process; accordingly, the tentative results are not reproduced in this published version of the paper. Simulations based on these results appear in Table 1 to illustrate the functioning of the model. Empirical work to date verifies the usefulness of this modelling approach for producing plausible overall results and simulations which demonstrate the effect of price and income changes on child care choice.

The second section of this paper describes the model of child care choice and methods of estimating selection-corrected price equations and the logit choice model. Section 3 describes the data set and selection of the sub-sample of interest, defines the major variables, and reviews the expected effects of variables on the child care decisions of families with preschool children. Empirical results from the price regressions and the logit choice model were originally presented in Section 4; these are now omitted as discussed above. Final results will be published in further work by the authors. Simulations of changes in day care and sitter prices and changes in family income for a mean family are reviewed in the new Section 4. Brief conclusions and plans for continuing work are presented in Section 5.

THE MODEL

The model describes the choice of the main child care arrangement for preschool children in families in which the mother usually works. The decision to work is assumed to be independent of the child care decision; this rather unrealistic assumption is imposed by data constraints.

Each family is assumed to have available each of five distinct types of child care arrangement: day care centre, out-of-home sitter, nanny (i.e., in-home sitter), care by father, care by another relative. The only exception is that single parent mothers have no access to care by father; in our estimating model the choice sets of single parent mothers are restricted to the remaining four child care arrangements. Families are assumed to know the expected price of each type of care conditional on family characteristics. Families may have available a number of alternatives within a particular care type (e.g., both Aunt Martha and Uncle John may be willing to provide care). The family bases its decision on the expected price of the particular type of child care arrangement.

All families are assumed to share a common indirect utility function for each type of child care. The utility function is, for convenience, assumed to be linear in the parameters of its arguments. Family utility from child care is anticipated to be affected by various attributes of child care services, including the expected price. In addition, the work situation of the mother, the ages and number of children in the family, family income and other family characteristics are expected to affect the utility a family gets from using a particular type of child care for its preschool child.

Families are assumed to inevitably choose the type of child care arrangement which gives them the greatest utility total. Although the choice of a child care arrangement is deterministic from the point of view of each individual family, the unobservability of numerous motivating factors and attributes of child care services makes the process random from the point of view of the observer. The utility function is assumed to have an additive random "error" term to reflect this unobservable component of utility for each family.

The random unobservable term is assumed to be distributed independently across individuals and types of care and to have a Type I Extreme Value distribution. This allows us to derive a convenient closed form for the probability (P) that family i will choose child care arrangement j:

$$P_{ij} = e^{V} / \Sigma e^{V}$$

Maximum likelihood estimation of the parameter values which maximize the probability of observing the choices actually made by families in the data set produces a set of logit estimates. Variables are specified either as conditional logit or multinominal logit variables. Conditional logit variables (e.g., price variables in our estimates) take on a different value for each choice category. In the logit model, then, day care price has no effect on the relative probability of choosing a nanny rather than a sitter. Multinominal logit variables, on the other hand, take on the same value for each different choice category; the estimated parameter measures the differential effect of this variable on the choice of one care type rather than another.

Economists typically assume that all potential purchasers of a product or service in the same market area face the same price for the product or service. Child care services do not fit this

mould; it is normal to observe a range of different prices for each type of care. There are several reasons for this:

1. Each type of child care arrangement has features which distinguish it from other types; along these dimensions each type of care is relatively homogeneous (e.g., all nannies offer personalized in-home care, offering tremendous convenience to the family). Nonetheless, there are also strong elements of heterogeneity for each type of child care. For instance, children of different ages in a day care centre receive somewhat different services; the staff caring for them may have age-appropriate training; there will be a different ratio of children to staff in each age group. Even for children of the same age, parents choose amongst suppliers according to perceived quality differences. As a result, different families in the same market area will pay different prices for day care and for other child care services.

2. Suppliers may take into account family characteristics in determining price. For example, sitters may offer discounts for the care of a second child in a family. Relatives may take into account the financial or social (e.g., single parent) status of the family in deciding how much, or whether, to charge for care.

3. Some families are eligible for subsidies for day care and licensed family home day care services. Fully subsidized families will pay only a nominal amount each week for these services; families with slightly higher incomes will receive partial subsidy and pay somewhat more each week. Families with live-in relatives may, especially if the opportunity cost of the relative's time is low, have available free care from a relative.

For all these reasons, prices are unlikely to be uniform across a market, but they are likely to be predictable. In other words, families may reasonably form a conditional expectation of the price of each type of child care arrangement available to them.

We regress price paid per hour by users of each type of child care arrangement on a set of family characteristics and characteristics of the particular child care type. It is possible that users have unobserved family characteristics, or choose care with unobserved attributes, such that users face different prices from non-users. In other words, users may face better prices than non-users, creating a problem of sample selection for a price regression based exclusively on information provided by users. We correct for sample selection using a multinominal logit selection correction suggested by Lee (1983).

If the price equations can be written compactly as:

$$P^*_j = X_i\beta_j + u_{ij}$$

then Lee (1983) has shown that the corrected conditional price equations can be written as :

$$P^*_j = X_i\beta_j - p\sigma_j\phi(J(Z_i\Gamma_j)/F(Z_i\Gamma_j)) + u_{ij}$$

where p is the correlation coefficient between the error term in a "reduced form" multinominal logit selection equation and u_j; σ_j is the standard deviation of u_j; ϕ is the standard normal density function; F is the distribution function of the multinominal logit; J is Lee's transformation of F

into a standard normal random variable; and $Z_i\Gamma_j$ is from the reduced form multinominal logit. Lee's transformation is given by:

$$J = \Phi^{-1}[F(Z_i\Gamma_j)]$$

where Φ^{-1} is the inverse of the standard normal distribution function.

The estimation strategy used can be summarized as follows:

1. estimate a reduced form multinominal logit choice equation over the entire sample to obtain selection terms for each of the price equations.

2. estimate the price equation, including the appropriate selection term as a regressor, on the select sub-samples of those who use each child care arrangement.

3. obtain fitted prices for all families for all child care modes.

4. estimate the "structural" modal choice equation, using multinominal logit, including the fitted prices.

THE DATA

The 1988 *National Child Care Survey (N.C.C.S.)* was designed by the National Daycare Research Network in co-operation with Statistics Canada and Health and Welfare Canada. The *N.C.C.S.* was administered as a supplementary survey along with the regular monthly Labour Force Survey in September 1988. As a result, the population from which the sample is taken and the design of the sample are similar to that of the Labour Force Survey.

The data set includes information about the main method of care used by a randomly selected "target child" in the family in order to permit parents to work or study. Nearly all families use some type of child care for some purpose while their children are growing up. However, the large majority of child care use is concentrated amongst preschool children who have employed mothers. School aged children use child care as well but for fewer hours per day, and purchased child care services are used much less frequently. Accordingly, we define our sub-sample to include only families with a working mother and at least one preschool child (less than 6 years of age), who used non-maternal care in the reference week. The final sub-sample comprises 1040 Ontario families with a usually-working mother who worked in the reference week (i.e., excluding families with single parent fathers, with mothers at school full-time, unemployed, temporarily absent from work, caring for their own child while at work or not in paid employment) and with a preschool target child.

Variable Definitions

We distinguish five types of non-maternal child care arrangement: care in a day care centre, care by a non-related sitter outside the child's home, care by a nanny (non-related sitter inside the child's home), care by the father, and care by another relative (whether inside or outside the child's home). The expected price per hour of care is modelled as previously outlined. Fathers are assumed to provide zero-cost child care services.

Ottawa and Toronto household locations are entered as dummy variables to capture the effect of increased availability of formal day care services. Regional governments in these metropolitan areas have been particularly active in encouraging the growth of licensed services.

The ages and number of children of child-care-using age in the family are expected to affect the choice of main child care arrangement. The reference category refers to a target child 0-1 years of age. Dummy variables are constructed for a target child 2-3 years of age and 4-5 years of age. The number of children less than ten years of age, and therefore potentially in need of child care services, is also expected to affect child care demand; this is entered as a continuous variable.

The rest of the variables in the logit choice model reflect various family characteristics. A number of these refer to characteristics of the mother in particular: the number of hours per week she works, her age (to pick up cohort taste effects), whether she is a lone parent (i.e., single, divorced, widowed, separated), and a series of dummy variables which indicate the highest education level she has reached (high school, post-secondary, college diploma or certificate, university). Others refer to the family's potential resources to provide or purchase child care: family income (both labour and other sources of income), the number of female adults, besides the mother, living in the household, and the number of children ten to eighteen years of age, living in the household.

Expected Results

From the studies by Hofferth and Wissoker (1990), Yeager (1978) and Cleveland (1990), as well as from previous studies not using an explicit price variable, such as Robins and Spiegelman (1978), Henriques and Vaillancourt (1988), Lehrer (1983), Leibowitz, Waite and Witsberger (1988), we can build up a picture of the expected influence of different factors on child care choice. Without seeking to justify this presentation by explicit and detailed reference to the above studies, let us present a compact description of expected results.

Choice of all types of care should be affected negatively by own price and positively by the price of the relevant substitute. Variables which reflect increased convenience (i.e., availability) of a particular type of care should inevitably increase the likelihood of choice of that type of care. So, for instance, Ottawa and Toronto variables may be expected to make the choice of a day care centre more likely, all other factors held equal.

Day Care

A day care centre is typically used by families with only one child, and that child is generally not an infant, but is likely to be two or three years of age. When part-day kindergarten is

available (age 5 and, increasingly, age 4), day care is less flexible and more costly in combination with kindergarten than are other forms of care. Increased hours of work by mother are expected to positively influence the choice of all market types of care, including day care. Mothers with greater amounts of education seem to have a clear preference for the more structured, educationally-oriented forms of child care available in day care centres. In most (but not all) studies, family income, lone parent status, and country of origin of parents have been found to have no consistent effect on the choice of a day care centre, when other factors (such as price) are held constant. We expect, however, that the availability of potential child care providers in the household is likely to decrease the use of day care and increase the use of care by relatives.

Sitter

The profile of sitter users is less distinct than that for day care users. Factors which increase the use of market types of care, such as the number of hours worked by the mother, are likely to increase sitter care. Factors, such as the number of female adults in the family or ten to eighteen year old children, which increase the use of non-market care are likely to decrease the use of sitters. There may also be cohort taste effects, with older mothers being more disposed to prefer sitters, while younger mothers may choose day care or a nanny.

Nanny

Families who use a nanny are likely to have a higher family income, are less likely to come from outside Canada, the U.S. or the U.K., are likely to have a higher level of maternal education (this may really be a wage effect, reflecting the greater opportunity cost of the mother's time). A family hiring a nanny is likely to have more than one child of child-care-using age (less than 10 years); otherwise the relative cost might be prohibitively high.

Father and Other Relative

Fathers are normally used for part-day rather than full-day care normally and usually when children are out of diapers. This implies a negative relationship of use of father care as the main child care arrangement to mother's hours of work, and a positive relationship to the age of the child. Mother's hours of care have been found to have a negative effect on the likelihood of using care by a relative, too; however, we expect that other relatives are more likely to be used to care for infants. Families from backgrounds other than Canada, U.S. and the U.K. are more disposed to use family types of child care; this should increase the use of both father care and care by other relatives. The same logic holds for the presence of female adults and children aged ten to eighteen in the family. They encourage the use of family types of care: the former will likely increase the use of care by other relative and the latter may increase both care by other relative and by father. We also expect that the presence of more than one child of child-care-using age will make the use of both forms of family child care more likely.

SIMULATIONS

Table 1 provides a set of simple simulations of price and income changes which demonstrate the effect of these variables on the predicted child care decisions of families. The simulations are artificial in the sense that they are performed on a single family regarded as typical -- a family with all explanatory variables set at their mean values in the sample as a whole. At sample mean values, using our estimated logit coefficients to determine relative probabilities, this family has a .086 probability of using day care, .428 probability of using a sitter, .087 probability of using a nanny, .169 probability of using care provided by the father, and .230 probability of using care by a relative.

Four alternative price settings for day care are shown under the heading "Day Care Price Simulations" in Table 1. The probability of using day care falls from .148 to .048 as day care price rises from $0.25 an hour to $3.50 an hour. The use of other forms of care increases proportionately to fill the gap.

The sitter price simulations in Table 1 are quite dramatic. As sitter price rises from $1.00 an hour to $5.00 per hour, the use of sitter care falls by more than half. Use of each of the substitute types of child care arrangement approximately doubles as a result. Family income also has important effects on the child care choice of a typical family. The three market forms of child care all are positively affected by family income as it rises from $10,000 to $100,000 per year: the probability of using sitter care rises by a few percentage points while the use of day care more than doubles and the use of nannies more than triples. At the same time, the likelihood of using family or non-market forms of child care falls, significantly in the case of father care, and precipitously in the case of care by other relatives.

Table 1.

PRICE AND INCOME SIMULATIONS USING THE ESTIMATED LOGIT MODEL

	DAY CARE	SITTER	NANNY	FATHER	RELATIVE
BASE CARE	0.086	0.428	0.087	0.169	0.230
DAY CARE PRICE SIMULATIONS					
$0.25	$0.148	$0.399	$0.081	$0.158	$0.214
0.50	1.137	0.404	0.082	0.160	0.217
1.00	1.116	0.414	0.084	0.164	0.233
3.50	0.048	0.446	0.090	0.176	0.240
SITTER PRICE SIMULATIONS					
$1.00	$0.055	$0.635	$0.055	$0.108	$0.147
2.25	0.072	0.520	0.073	0.142	0.193
5.00	0.109	0.277	0.110	0.214	0.291

FAMILY INCOME SIMULATIONS					
$10,000	$0.056	$0.379	$0.047	$0.182	$0.335
25,000	0.067	0.402	0.061	0.179	0.292
60,000	0.098	0.437	0.104	0.162	0.200
100,000	0.136	0.438	0.176	0.132	0.118

NOTES: Average family income in the sample is $47,675. Average expected price per hour of care is $1.85 for day care, $3.23 for sitter, $1.70 for nanny, $0.00 for father, and $0.66 for care by other relative.

Simulations refer to an artificial family with explanatory variable values set to the mean of the values of these variables in the sample as a whole. While, for instance, the price of day care changes, the values of all other variables remain at mean values.

CONCLUSIONS

Our preliminary work on this data set appears to validate the usefulness of selection-corrected price regressions to replace crucial missing price data. Despite some weaknesses in the price regressions, the predicted expected prices perform well in the final logit choice model and produce simulations which are credible.

There are several immediate tasks on our research agenda. We can improve the predicted prices by developing an explicit modelling of eligibility for day care subsidy. We need to amend the other relative price regression to account more fully for low and zero-priced relative care, perhaps by adding variables which reflect availability of a wider range of potential caregivers (e.g., children 10-18 years, male adults), perhaps by reflecting the opportunity cost of these relatives' time. We also need to perform various statistical tests on the model (e.g., the Independence of Irrelevant Alternatives assumption) and to search for additional variables which might proxy other attributes of child care services (such as the availability and quality of care).

ENDNOTES

1. See also Powell (1990).

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IDEOLOGY, SOCIAL POLICY AND HOME-BASED CHILD CARE

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ABSTRACT

This paper is a presentation of a work in progress focusing on the development of a framework representing relationships between three classical political ideologies of Western democracies (Conservative, Liberal and Socialist) and associated social policies affecting home-based care. As the framework has developed based on interviews in England, Sweden, the Netherlands and Canada (Ontario), an alternative, non-traditional ideology has emerged, which I have termed a reproduction ideology. It is an ideology that relates to the process of creating and sustaining life including conception, birth and the care and nurturing of children that has developed from the experience of persons who are directly involved in the lives of parents, children, and caregivers involved with home-based care. This emergent ideology indicates a common search for social policies which are more reflective of the collective interests of parents, children and caregivers and includes a discussion of the limitations of classic ideologies to provide an adequate rationale for caregiving and related policies.

INTRODUCTION

This paper is a presentation of a work in progress for a dissertation leading to an Ed.D. at the Ontario Institute for Studies in Education. Currently, I am working on the development of a framework which represents relationships between three classic political ideologies of western democracies (Conservative, Liberal and Socialist[1]) and associated social policies affecting home-based care[2]. As the framework has developed based on interviews in four countries--England, Sweden, Netherlands and Canada (Ontario)--an alternative ideology has emerged. This alternative vision arises, not from traditional political theory or party platforms, but out of the *experience* of persons who are directly involved in the lives of parents, caregivers and children using home-based care. This emergent ideology, which I refer to as a social reproduction ideology, reflects a common search for policies which are more reflective of the collective interests of parents, caregivers and children; it also involves a critique of the ability of the classic ideologies to provide a rationale for those policies. At present I am referring to this emergent ideology as a social reproduction ideology, i.e. one which relates to the process of sustaining and nurturing life.

Why Home-Based Care?

My interest in the relationship between political ideology and home-based child care came out of my work on a literature review about the status of family day care from an international perspective for the Ontario Ministry of Community and Social Services (Deller, 1988). When I attended the first International Conference on Family Day Care in 1987 in Wales and as I learned about policy differences in different countries regarding home-based care, I became fascinated by the latent but powerful ideological dimension underlying these policies. Questions surfaced

which reflected this ideological dimension: Why is it that while the vast majority of child care day throughout the world is provided in home settings, this form of care has had the least visibility and status in public policy discussion? Why is it that in some countries home-based caregivers are public employees and provide half of all publicly-funded child day care while in other countries they provide over 80% of all child day care and are viewed as informal caregivers and/or as a private cottage industry? These questions led to others about ideological definitions of public/private spheres and women's roles in these; about concepts of individual freedom and collective responsibility for the care and education of young children; and about the nature of "professional" caregiving.

Methodology

In this brief report, I will only mention the general principles of the methodology I used. General frameworks were taken from the works of Richard Simeon, a Canadian policy analyst (Simeon, 1976) and Catherine Jones, a British social policy analyst (Jones, 1985). The study uses a feminist perspective in concepts, language and methodology; its scope is comparative. My disciplinary background is as an early childhood educator, but asserting with Heidenheimer, Heclo and Adams (1983) the necessity and value of comparative studies being interdisciplinary and of comparative policy analysts and practitioners learning to speak each others' language. A good case for the inductive methodology used is made by Ehlstain (1982, p. xii):

> Much that is important and subtle falls through the grid of standard modes and methods [of contemporary social science] and is ignored. Interpretive daring is precluded. My method, if it can be called that, is not unlike Hannah Arendt's description of her own approach. She charmingly called it Perlenfischerei, `pearl fishing'. One dives in, she said, not knowing quite what one will come up with. The important point is to remain open to one's subject matter, to see where it is going and follow - not to impose a prefabricated formula over diverse and paradoxical material.

The development of the framework has been based on the collection of data (or pearl fishing) from three sources: a home-based care literature review, a public policy review and interviews with key informants. The literature review and personal contacts resulted in the collection of information about home-based child care policy in 16 countries. It appeared from this data that differences in policies and practices reflected different political, economic and social beliefs. A preliminary framework was constructed which would reflect that relationship and it was used to organize a description of home-based child care policies and practices in each country.

Political theory and public policy literature was studied to add theoretical and conceptual depth to the framework. On the basis of this exploration, a set of research questions was devised as a means of exploring ideological bases for social policy and home-based child care policy. These questions consisted of general ideological questions (e.g. What are the basic needs, rights and responsibilities of citizens?), more specific social policy questions (Who is responsible for the care and education of young children?), and questions concerning the ideal form of home-based child care policy and practice (e.g. What should the occupational status of home-based child care providers be?). In the revised framework which emerged, the political theory and public policy

literature were used to derive answers to those questions from the perspective of each of the three classic political ideologies--liberal, conservative and socialist.

The revised research questions were used as the basis for interviews with persons in four countries with significantly different family day care policies--Sweden, Netherlands, England and Canada (specifically, Ontario). Persons interviewed were chosen because they represented decision-making groups or were otherwise involved in the development of policies; they included representatives of political parties, advocacy groups, professional associations, home-based caregiver associations, government policy administrators, unions, academic researchers and educators. The taped discussions were analyzed for examples of congruence with the classic ideologies, as well as for the purpose of identifying conflicts, contradictions and compromises with the predominant national ideologies which arose as a result of the experience of caring for and nurturing children, parents and caregivers.

The Framework

The following two sections describe the current state of the framework. Section 1 identifies the position of each of the classic ideologies on general questions of public responsibility for human needs and well-being and more specific questions related to public responsibility for child care and education. These positions were derived from political science and public policy literature and validated or modified through discussions with persons in each country who "fit" with a particular political ideology.

Section 2 is a summary of the responses of persons interviewed who identified with each of the classic ideological positions to policy questions related to home-based care. In addition, responses related to the emergent social reproduction ideology are included here to reflect the ideas of persons interviewed who found the classic ideologies inadequate because they were not "fitting" with their experience of attempting to value children, caregivers and parents.

Current work on the dissertation involves further refinement of the emergent ideology and a more precise articulation of the public policy which develops from it. I am also working on bringing the interviews to life in the dissertation. I experienced considerable excitement as I listened to persons in each country struggling with home-based policy questions and expressing gratitude for the opportunity to think through the questions clearly. As I engaged in dialogue with them about the issues and accumulatively incorporated their voices into my discussion, I increasingly wished to find a way to allow them to hear each other. This preliminary report is the first step.

SECTION 1

Classic Ideological Responses to Social Welfare Questions

Table 1 identifies the position of each of the classic ideologies on general questions of public responsibility for human needs and well-being and more specific questions related to public responsibility for child care and education. The questions were as follows:

1. What are the basic needs of citizens and how does this reflect basic human nature?

2. What are the basic rights of citizens?
3. What are the basic responsibilities of citizens?
4. What is the role of government in relation to the basic needs of citizens?
5. What constitutes the entitlement to well being of citizens?
6. What are the public and private realm boundaries?
7. What is the role of the marketplace, the state, the family and the community in meeting the needs of citizens?
8. What is the ideal form of voluntary organizations?
9. What is the basis of political authority?
10. What is the best form of economic planning and production?
11. What is the nature of an individual's labour in relation to the state?
12. What is women's role in the private and public realms?
13. Who is responsible for the care of children?
14. What are the relevant public policies related to he care and education of young children?
15. How should the cost of care of children be distributed?
16. What is the relationship between care and education?
17. Who is responsible for the employment rights of women working in their own homes?
18. What is the role of professionals in the care and education of young children?

Table 1.

IDEOLOGICAL QUESTIONS			
	LIBERAL	CONSERVATIVE	SOCIALIST
Basic Needs/Human Nature	Individualism; power, self-interest; competitive risk-taking	Civilisation fragile; need structures, institutions of family, class, church	Equality, social integration, cooperation; pro-social fraternity
Basic Rights	Freedom (from constraint and of contract); liberty; equality of opportunity (through law and education); property rights	Privileged: to power and respect; All others: to security and order; to be treated correctly according to one's place in the world	To have needs met collectively without stigmatizing; to enjoy a minimum standard of living; removal of social stress caused by industrialization
Basic Responsibility	To take initiative; independence, self-reliance; participation in representative forms of democratic organizations	Privileged: to govern and guide community in orderly, civilized way; All others: duty, obedience	To share, cooperate, no right to more property than can use; voluntary simplicity; to work for each other
Role of Government	Enable economic progress; create basis for equal opportunity through law and education; protect private property	Social order; by strengthening family relationships, defending prerogatives of church and charitable organizations, protecting privileges of	Social ownership of means of production and distribution; responsible for social welfare (well being); to protect individuals from

		governing class	exploitation
Entitlement to Well Being	Welfare of society depends upon welfare of individuals in pursuit of self-interest	Benevolence of those who have giving to those in need; humanitarian concerns	Universal, preventive, participatory, deprofessionalized
Public/Private Boundaries	Separation of state and civil society; 3 zones of civil society: private domestic world of family; market-free contractual economic activity; voluntary social and political organizations	Public: realm of political power; private: home and community subordinate to state; hierarchical and patriarchal; private: women public: men	No boundaries

IDEOLOGICAL QUESTIONS - CONTINUED

	LIBERAL	CONSERVATIVE	SOCIALIST
Role of Market/ State/Family/ Community	Civil society: privileged domain, with little state intervention	State: law and order; market: public space to accumulate wealth; family/community-- private domain to support public	State has primary responsibility; share with workers' cooperatives, unions, consumer associations; not family as an economic unit or charitable, voluntary organizations
Ideal Voluntary Organizations	Decentralized, local associations with representative boards	Charitable organizations based on wealth and morality of elite	Collectives, deprofessionalized organizations, unions
Basis of Political Authority	2 bases: consent of free and equal individuals; rational/legal/scientific basis - professional expertise knowledge	Authority: tradition, wisdom and leisure time of wealthy	Collective consensus; labour
Economic Planning and Production	Free market; taxation on unified principle, not used for income redistribution	Class-based command structure	Social ownership of means of production; abolition of private ownership; from each according to his ability and to each according to his need
Individual Labour/State	Individual labour for independence, self-reliance, self sufficiency benefits whole society	Labour is duty performed for authority	Labour is by individual for community; labour is the source of all value

Women's Role in Private/Public Realm	Same as men's; equal opportunity in each realm through law and education	Private: care of children to become moral citizens; family is basic institution of society; Public: charitable work and moral authority	No gender division of labour

Table 2.

SOCIAL POLICY			
	LIBERAL	CONSERVATIVE	SOCIALIST
Responsibility for Dependency of Children	Family, Community and Marketplace, but not state	Family, unless breakdown, then voluntary, charitable organizations, church; state, only if necessary	Childrearing is communal collective responsibility to be carried out by state and local collectives, including parents
Categories of Relevant Public Policy	Education Policy; Equal employment opportunities	Family Policy: affirm responsibility of family; may be pro-natalist to bolster nation; Child Care Policy--as welfare provision	Child Care and Education Policy for all children by the state; no family policy; employment policy to prevent exploitation of women providing care and to encourage gender equality in caring for dependency
Cost Distributive Decisions for Dependency of Children	For education: flat-rate taxation	Welfare based on neediness responsibility of wealthy; especially well done by voluntary funds of wealthy	Costs shared through progressive taxation
Relation Between Care and Education	State responsible for education; also for equality of opportunity of women in the labour force; not responsible for care	Both care and education responsibility of family as much as possible; separation of care and education; education--formal learning in public sphere; care nurturing in family and community in private sphere	No distinction between care and education; both responsibility of state
Women's Labour in Home; Whose Responsibility	Self-employed entrepreneurs or informal carers with contracts	Moral responsibility of women to care in home; sacrificial ethic	Part of public labour force; unionized and protected
Role of Professionals	Professionals with	Professionals needed to	People with

in Care of Children	rational scientific knowledge valued and rewarded by pay and status	provide family supports, repair of breakdown	training/education have responsibility to give; not exclusive power and status

SECTION 2

Home-Based Child Care Policies

Following is a summary of the responses of interviewees to policy questions related to home-based care. If the interviewee identified with one of the classic ideological positions, his/her response was used to reflect that position. In addition, responses related to the emergent social reproduction ideology are included to reflect the ideas of persons interviewed who found the classic ideologies inadequate because they were not "fitting" with their experience of attempting to value children, caregivers and parents.

1. What do you think the occupational status of home-based child care providers should be?

Liberal Position - The stress was on formal professional education, standards formulated by the profession and a career ladder (ways of moving up) within the profession. This led to either defining providers as paraprofessionals or professionals.
Conservative Position - Informal carers were the preferred status in this position, with the possibility that there might be some providers functioning as professionals in situations where the "small world" (community and family) was not working and more expert knowledge was required.
Socialist Position - The most common designation here was skilled worker, but the underlying concepts related to ways of valuing the work that is done by providers, providing training, support and connection with co-workers, consciousness about the task to be done, and alternative career options.
Social Reproduction Position - This position is critical of production-oriented ways of valuing caring tasks. The basis for the task is mothering, nurturing and neighbourliness. To assume that this is learned through the intellect primarily is alienating; to create a hierarchy of status based on formal education is also alienating. However, to place it outside the public realm is to demean it and exploit the carers.

2. What do you think the employment status of home-based child care providers should be and how should optimum working conditions be achieved?

Liberal Position - The stress here was on the use of voluntary organizations or commercial organizations and on voluntary contractual relationships with employers or parents. Thus the choices for employment status were: employees of voluntary or commercial organizations; self-employed with either dependent or independent contracts with those organizations. Legal or semi-legal contracts were seen as the best way of protecting the working conditions of the provider.

Conservative Position - The preference here was self-employed status. Self-regulation or employer responsibility was the best way of ensuring optimum working conditions.

Socialist Position - This position favoured state employee status, with the providers either being employees of the local authorities or of non-profit organizations.

Social Reproduction Position - The two principles which surfaced here were those of employment rights of providers on the one hand with flexibility of service and autonomy for providers on the other. The state employee status was seen as the best way to positively ensure proper pay, benefits, etc. across the country. On the other hand, there was concern that if the state tended to be bureaucratic and patriarchal, that status could create rigidity in what the provider could or could not do, and would not necessarily reflect the ways that he/she might want to best care for children, thereby making it difficult for caregivers to be creative and innovative, as well as sensitive and accountable to local community needs and concerns. These people did not want to give up one of these principles for the other, but sought to find ways to combine them. The best way to ensure optimum working conditions was not through creating conflictual bargaining processes with parents or the state, as in production settings, where the worker's rights are fought out in balance with the employer's rights. Since the work involves the well being of all concerned, the parent, the provider, the child and the society, it is in the best interest of all that working conditions are optimum. A society that states that it is concerned about the best interests of the child, while taking no collective responsibility for the working conditions of the provider, or the well being of the parents, is at best hypocritical. Thus the best insurance of optimum working conditions is the consensualized decision making of all concerned. The best way of doing that might be a union, but operating along quite different lines than our current unions.

3. What is the best kind of association for representing the interests of providers?

Liberal Position - Generally this position supported provider associations separate from unions (if any) to represent the professional interests of the providers. Both local and national organizations were valued.

Conservative Position - Local informal provider associations enable informal carers to support one another.

Socialist Position - Unions are thought to be the best overall organization both for development of skills and working conditions.

Social Reproduction Position - This position prefers associations which are not divisive of the common concerns of persons involved in caring for children, i.e. family day care providers, supervisors, centre-based carers, parents. In the interests of empowering a group within that, a separate organization may be valued as a step toward a strong united organization.

4. What responsibility should the government take for home-based child care?

Liberal Position - Generally the Ministry of Education is preferred because it does not separate care and education in an arbitrary way, and provides a better allocation of funds for day care. There is a general agreement that the central government should be involved in funding, legislated standards, and policy. Local governments should also provide funding, policy and some provision, but not the only provision. Regulations should be required for all providers. Funding responsibility should be shared among parents, voluntary organizations and commercial organizations. Vouchers are suggested as possible ways of increasing parental choice.

Conservative Position - The Ministry of Social Services is preferred because of its focus on caring, families and communities. The only government involvement should be funding for needy families, and regulations in relation to that funding, and this at the local government level.

Socialist Position - The choice of Ministries relates to the degree of universality of the service and the non-stigmatizing nature. This was the Education Ministry in the United Kingdom and the Netherlands, and the Social Services Ministry in Sweden.

The central government should be the major source of funding to equalize the provision across the country; they should also be involved in legislation related to standards, policy and setting a framework and targets for the local governments. The local governments should work with the central governments on policy, planning, implementing and providing the majority if not all of the service. All providers should be regulated and funding should be universal and by direct provision.

Social Reproduction Position - This position is critical of the stigmatizing, welfare orientation of social services generally; of the lack of knowledge about young children, families and communities and caring orientation of the education ministries; of the focus on employment as the basis for child care in the labour ministries; and of the pathology/professional orientation of the health ministries. A frequent recommendation from this position is that there be a Ministry of the Child or a Ministry for Women and Children. The concern here, then, is that this would make it easy for the entire ministry to be marginalized and stigmatized. The ideal involvement of government is seen as central government providing funding, regulations/standards and policy, provided that the central government has a commitment to reproduction and specifically to child day care. If not, the decisions should be made as locally as possible in order to reflect reproduction values. Ideally, all levels of government would work together regarding standards, policy and program implementation. Regulated providers and universal direct service funding are desired, since the lack of these does not sufficiently protect the child; women pay the price of inequality of provision. The view of government involvement is that it is not a policing involvement or heavily monitoring, but a supportive and facilitating one, with reproduction concerns shared at all levels.

5. What role should voluntary organizations (non-government organizations, non-profit organizations) play in the provision of home-based child care?

Liberal Position - Voluntary organizations, that is, those with community boards, in a licensed or contractual relationship (partnership) with the government, and using professional expertise, are valued as the best way of providing supports and organization to providers.

Conservative Position - Small, grass-roots self-help organizations, independent of the government, are the preferred forms of support.

Socialist Position - The ideal is not to have any voluntary organization provision.

Social Reproduction Position - If the state does not take collective responsibility for reproduction, then voluntary organizations are seen as evolutionary steps toward that responsibility.

6. What are the best structures for provision of home-based child care?

Liberal Position - The view here was that the organizations preferably operate in the voluntary sector and that providers have the choice of being involved with them.

Conservative Position - The preference was for supporting independent providers; any organizations that they wish to organize themselves informally are valued.

Socialist Position - Preference is for mandatory structures; that the providers be required to be part of an organization which gives support, training and pays them; the preferred sponsors would be local authorities.

Social Reproduction Position - The stress here is on the need for family day care providers to receive support and adequate working conditions; this should be mandatory to protect children, and to protect providers from exploitation, but should not become a policing activity. The ideal organization would balance respect for the

independent functioning of the provider, respect for her/his need for support; respect for the parents and respect for the needs of children. The persons working in the organizations would be people who were sensitive to the unique characteristics of family day care, perhaps ideally have been family day care providers themselves, with the additional administrative, adult education and organization skills required to provide a support service. Many of the respondents speaking from their own experience valued the concept of a centre which provides both centre-based and family day care, where children could flexibly move from one program to the other as their needs changed, where the workers in each could be a respectful support to each other; where parents could have some choice between the two as their needs change.

7. What should the role of parents be in relation to home-based child care?

Liberal Position - The stress here is on parental choice with a secondary requirement that it be in a funded, regulated service and that the choices be across the public, commercial and voluntary sectors.

Conservative Position - The majority of parents are seen as best being consumers of services developed in a free market, or of private arrangements. A few with "special needs" would be seen as clients of a professional service.

Socialist Position - Parents are seen as citizens who have rights to day care as an essential service to support children's development and gender equality in the labour market. Choice is valued, but is secondary to the parents' rights to provision and the state's ability to provide this.

Social Reproduction Position - The broader question of parents' juggling of production and reproduction arises here, with more questions than answers. How do parents take the time to make thoughtful caring choices, participate in decision making, and generally be involved in sharing reproduction concerns with other carers/educators of their children, when they are also fully involved in the world of production. The total work/home life needs to be restructured to allow time for parents to do more than passively receive day care as a service.

8. What are the relative advantages and disadvantages of home-based child care and centre-based child care?

Liberal Position - The major stress here is on parental choice and individual differences in children and families. Centre-based care is valued for its educational component and its accountability and visibility. Home-based care is valued for very young children (especially under 2's) and those needing special attention.

Conservative Position - Family day care is preferred because of the value of families and mothers in home settings for raising young children, flexibility and lower cost. Centres are criticized for being too large, too much changeover in staff leading to poor adult-child relationships, too little privacy for children.

Socialist Position - Centre care is preferred because of its relationship to education and collective socialization in values related to social cooperation, social equality and gender equality. It affirms that day care is a public and visible community service. Providers need co-workers and centre care provides that.

Social Reproduction Position - A mixture of both kinds of care is needed for providers, children, parents and society generally; as long as both kinds of care are equally supported, paid and valued.

Providers - some providers like to work independently in a home setting caring for children; others like to work in a group setting with co-workers.

Children - children need some individual attention, continuous relationships with caregivers to give them an historical context, privacy and non-structured time, close relationships with much older and younger children, grandparents, etc; they also need social experiences, group functioning, educational stimulation.

Parents - Parents need a warm, friendly neighbour to support them over the years; they also need to see their child with other children with a caregiver who has to divide her attention "fairly"; they need a choice of values embodied in the family day care setting and those in centres.

Society - Minority linguistic and cultural groups need to have the possibility of cultural value and first language maintenance in family day care homes; they also need to have the multicultural possibilities available potentially in centre-based care. For gender equality and valuing of reproduction, there is a need to think through how to make this possible in both kinds of care. It does not now seem easy for men to take public reproduction jobs. In Sweden, it was suggested that it might be easier to encourage men to become family day care providers, because they had positive feelings about home-based work and their independence, but negative feelings about working in a group setting with primarily women co-workers.

FOOTNOTES

1. The Conservative, Liberal and Socialist classification is used to refer to the roots of those ideologies in western democracies. Current political parties in any country may use those titles but may differ considerably from their roots.

2. The terms home-based care and home-based care provider or caregiver are being used here as the most politically neutral and universal of the many possible designations--e.g., family day care, private home day care, day mother, mother's assistant, family home care, childminder.

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COMMENTS ON: "TALKING TO CHILDREN: THE EFFECTS OF THE HOME AND THE FAMILY DAY CARE ENVIRONMENT" AND "SCHOOL-AGE CHILD CARE: A PRELIMINARY REPORT"

Kathleen Brophy - University of Guelph

The ecological approach to understanding how children develop has increased the complexities of understanding factors involved in providing quality child care. While the focus of both training and research on early childhood education has included both the child and the family, an ecological perspective requires that research on quality child care simultaneously consider other salient contexts, more specifically, the home and the school.

Goelman and Pence quite clearly show the complementary and supportive role played by private home day care providers and parents. While focusing specifically on the area of language, the results of the study demonstrate that private home day care providers build on the experiences provided by the family in developing language skills in young children. As stated by Goelman and Pence, the developmental status of the child "must be viewed within the context of the processes and structural features of the child's day care and home setting" (1991:2).

In a similar view, Jacobs, White, Baillargeon, and Betsalel-Presser, have shown the complexity of factors involved in successful transition to school for young kindergarten children. Again, from an ecological perspective, the context of the home, school, and child care program must be understood. Jacobs et al. state that the child must relate to 2 non-parental adult educators and 2 potentially different non-familial environments. In actual fact the child is relating to 3 or more significant adults and 3 different environments. The importance of consistency, communication, and understanding among the adults in these three contexts becomes central to a child's successful transition. There appears to be little understanding and communication between school and child care staff and inconsistent quality in the child care and kindergarten programs themselves. Such factors could place the child at risk.

Research has tried to focus on the dynamics of the partnership that is formed around families, child care providers and schools. For practitioners the challenge becomes one of how to make this partnership work. There is much current interest in enhancing the family support function of child care programs. This interest derives from the ecological perspective. While early childhood educators have traditionally focused on the child and acknowledged the role of the parents, providing the time and support to include the family perspective in actual programmatic decisions has been limited. In fact, both child care professionals and school teachers tend to use traditional types of family involvement approaches such as meetings, newsletters and conferences (Burton, l992). In addition, Doherty (l99l), in summarizing factors involved in providing quality child care, only refers to parents in terms of parent participation within the broader category of contextual factors. Again, this is a more traditional view of family involvement looking at participation on boards. Doherty (l99l) refers to the need to educate parents about quality and their responsibility to check for it. Understanding the role of the family in the provision of quality and the family support aspect of child care as it relates to quality, however, is not discussed.

The development of a partnership between home, school and child care becomes more difficult not only for the reason that the dynamics are more complex but also because of the nature of the school and child care systems. One of the major barriers toward collaboration between school-based programs and child care programs is the power imbalance between the child care and education systems. Greater coordination between these two systems must occur, but how this is to happen is not clear. Education is one important aspect, education of all the professionals involved. In addition, a chance to dialogue is critical. The hope is that a sense of mutual respect will develop along with collaborative goal setting and programming, so that the benefits would flow to all children and families involved.

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COMMENTS ON "THE EFFECT OF PRICE ON THE CHOICE OF CHILD CARE ARRANGEMENTS" AND "ECONOMICS AND CHILD CARE POLICY"

Ruth Rose - Université de Montreal

My comments here will touch not only *The Effect of Price on the Choice of Child Care Arrangements*, the paper just presented but also on the paper presented by Cleveland this morning on *Economics of Child Care Policy*, because they are obviously related.

Both of these papers are useful contributions to understanding some of the economic factors which determine why parents choose different kinds of child care. In fact, the whole area of child care is one which has not been much explored by economists and I'm happy to see Cleveland and Hyatt developing solid research in this area. However, I would like to comment first on the nature of demand for child care (the real subject of these two papers), then on supply and finally say a few words about some of the policy areas at which Cleveland hints so tantalizingly without really developing.

SOME METHODOLOGICAL ISSUES

To begin with, I would like to take issue with Cleveland's statement that economics is the study of markets. When I studied economics, I was always told that economics is the study of "scarce resources". If there is anything which is scarce in Canada today, it's quality child care. However, I never agreed with that definition either. For me, economics has always been a **social** science whose object is the study of how human societies organize their production and its consumption. Non-market production has always been a legitimate object of economic analysis, if an elusive and frustrating one. One of the main criticisms the women's movement has addressed to economics, our system of national accounts and even the census, is that they are perfectly willing to add into the measure of GNP self-consumed agricultural production and the imputed rental values of owner-occupied homes but it has never come to terms with the services women provide in the home.

Obviously, child care is a service which is still half way in and half way out of the market economy. Even when it is provided by licensed centres or supervised family homes where all payments are declared and officially entered into the national accounts, the fact that child care workers are paid substantially less than they could earn in other occupations which require similar qualifications means that we are underestimating the value of this service as compared to the standard example, animal care in zoos. Most of what goes on in the "grey" market of undeclared family home child care, undeclared nannies and unpaid relatives does not show up in our national accounts at all, even though Cleveland correctly includes these forms of child care in his definition of the "market" since they do have a price, and money does change hands. Finally, child care provided by parents at home, especially at the sacrifice of earned income - which, of course, means mainly by mothers - has not only "reproductive" value but also "productive" value.

There is a whole literature which attempts to quantify the value of this production (along with that of other housework)[1].

This, having been said, when we analyze the "demand" for child care - by which term we really mean the "effective demand", or the demand which is backed up by the willingness of parents or the state to pay - we have to take into account not only the non-market and semi-market alternatives but also the interrelation with the mother's job opportunities. To some extent, Cleveland and Hyatt do do this. They find a positive relation between the use of formal centre care and the mother's educational level and her hours of work which are probably the best indicators of her earning capacity. However, the 1988 *National Child Care Survey* asked specific questions about whether women had decided not to take a job or to take only a part-time job because of the absence of satisfactory child care. This information should not be ignored.

One of the things which struck me strongly when I served on the Task Force on Child Care was that, in 1984, the province which spent the most per capita on child care (with the exception of Québec where the availability allowance accounted for such a large part of provincial spending) and which had the highest number of spaces, relative to the number of pre-school children, was that bastion of free-market conservatism, Alberta[2]. Of course, it is also the province which has the highest level of labour force participation among women. Feminists have also long pointed out that during the war, when Canada needed woman-power, it created the necessary child care centres.

In other words, I am suggesting that as we look at the demand side of the equation, we have to take account of the fact that in a period of high unemployment such as the 1980s, even in 1989 and 1990 at the high point of the business cycle, a great deal of the demand both for child care in general and for the higher quality centre care in particular, is not effective because parents feel they cannot afford it. From the point of view of our overall economy, the fact that many women do not enter the labour force or take only part-time job, because the kind of child care they would like is not accessible or not affordable, represents a waste of potential economic resources. To have one woman take care of one child or even two is not the cheapest way to provide day care, although it may be preferable for other reasons.

I calculated that in 1984, the total cost of non-parental child care in Québec was $1.5 billion of which only a little under 11% was paid by federal and provincial governments. About 56% was paid for by parents and 33% by child care workers by virtue of the fact that they earn far less than they would if they were working in the public sector at a job requiring comparable qualifications[3]. Of the 89% paid for by parents and child care workers, probably less than 20% ever appears in our national accounts either because it is provided in a licensed centre or a supervised family home or because parents claim the tax deduction and child care workers, therefore, declare their fees as income[4]. This represents over a billion dollars worth of production which is not visible in the market in Québec alone; four billion if we extrapolate very roughly to the rest of Canada. And that doesn't count child care provided by parents themselves.

When we are dealing with child care, we are dealing to a large extent with a very imperfectly formed market. Of course, the *1988 National Child Care Survey* and the Cleveland-Hyatt paper do try to get at this invisible aspect of child care production but methodology, and especially the policy conclusions we draw must take account of the fact that such a large part of demand is latent and not "effective" in the economist's sense.

A minor methodological point. A good part of the Cleveland-Hyatt analysis is dedicated to estimating the price of child care arrangements **not chosen** through a rather complex econometric analysis. While these methods are ingenious and do seem to provide some interesting results, I have to wonder why the authors chose to ignore the more qualitative information which is available from the survey. In fact, the survey did ask why each of the alternative forms of child care was not chosen and identifies price as a specific variable where the parent gave that reason. It also asked how much more parents would be willing to pay for the kind of child care they had chosen, a measure, admittedly rough, of the elasticity of demand. It seems to me important not to lose this information in the analysis of determinants of demand just because it seems less precise than more quantitative answers.

A further point I would like to make is that we do know a considerable amount about the supply of child care services although this information has perhaps not been subjected to the economist's modelling tools. The background papers to the *Report of the Task Force on Child Care* provide a lot of useful information on wages and working conditions of centre-based child care workers as well as the cost of both formal and informal child care across Canada[5]. In Québec, the Office des Services de Garde à L'enfance regularly publishes the distribution of fees charged by commercial and non-commercial centres and supervised family day care[6]. A few years back, it also did a fairly detailed study of family home child care workers[7] and today, we have heard about a number of pieces of research useful for understanding something about the supply of both supervised and unsupervised family home day care. A systematic survey of the literature, both economic but mainly other, would be useful in this area.

SOME POLICY ISSUES

And that brings me to questions of policy. Cleveland and Hyatt found, both in their review of the literature and in their own study, that price and family income are important determinants of the kind of child care chosen. Better educated and higher-income parents are much more likely to choose higher quality care in formal centres. Lone mothers are also more likely to choose centres, probably because they are likely to be eligible for Canada Assistance Plan financed subsidies to low-income parents. Cleveland and Hyatt propose to examine this last question more closely but it is not incorporated into their work at this stage. They also found that the availability of centre spaces - i.e., living in Toronto or Ottawa where there are more spaces available - also has a positive impact on the probability of using centre care.

All of this suggests again that a lot of demand is latent; that parents would like to use centre care but either can't find a space conveniently near their place of residence (or place of work) or that they feel that it is prohibitively expensive. Under free-market logic, if parents find that formal child care costs more than they are willing to pay, then society is not justified in providing the resources for this child care if the same service can be provided more cheaply in the informal market. From this point of view, public subsidies to certain forms of child care - or for that matter to any form of child care - distort the market. In other words the effect has been to allocate resources to one kind of production when these resources would be more productive in some other kind of production.

Three kinds of criticisms can be addressed to this argument. The first is related to what I was saying above; that is, that the market economy systematically underestimates the value of

women's work, both in the home and in the labour market. Young women may not have enough earning power immediately to justify the cost of formal child care; however, staying on the labour market in the early years represents a form of investment for future earning power which neither the labour market, the women, nor their husbands may accurately assess.

Secondly, when unemployment is high - and it has generally been higher for women than for men - then it is hard to argue that we are misallocating resources by putting them into child care. On the contrary, developing child care, along with other personal services such as home care for the aged and the differently-abled, may be an important component of a full-employment policy that would even help reduce the deficit even as it enlarged the tax base. However, this involves a complex macro-economic argument which it is difficult to treat adequately here.

Thirdly, there is the question of externalities which Cleveland did mention in his presentation but without developing very clearly. If quality child care has benefits to society which are non-monetary, or distant in time, or which are inaccurately measured by the market, then these benefits have to be weighed in any cost-benefit analysis. These externalities may affect either the mothers - for example, if equality for women in the labour market is considered desirable independently of their productive value; or the children - early childhood education makes for better performance in school, less delinquency, fewer health problems, etc. This is where the research of sociologists, psychologists, early childhood education specialists and others is so important and complementary to economic research.

If we do decide that public subsidy to child care is warranted, the question then becomes in what form. Currently, the largest amount of money is channelled through the child Care Expense Deduction, with Canada Assistance Plan, shared financial assistance to low-income parents, a close second. Financial assistance to low-income parents is justified on equity grounds although it goes against free-market logic because it reduces the cost to those parents who have the lowest earning capacity and whose use of child care is therefore not justified on the basis of allocative mechanisms. I personally find the equity argument more convincing.

The child care tax deduction is justified by free-market logic as an expense of earning income just as the use of an automobile by a salesperson is recognized by our tax law. Two points. First of all, we must ask why it is considered an expense of working for the mother - or, more precisely, the lowest income-earner in a couple - and not of the father. In Québec, since 1987, the higher earner may deduct child care expenses as long as the other spouse has minimal earnings or is a full-time student, which causes other problems in terms of equity between the spouses. Converting the deduction to a tax credit at a fixed percentage - as the federal government has done with personal exemptions, or Unemployment Insurance and Canada Pension Plan contributions would eliminate this problem and allow the couple to divide the deduction as they see fit. It would also solve the problem that the tax deduction is regressive giving higher benefits to high-income taxpayers than to those with low incomes and giving differential benefits depending on how earnings are distributed between the two spouses.

Which brings us to the second point: it is middle income families who get the least benefits from Canadian child care policy. Most two-earner families have incomes too high to qualify for Canada Assistance Plan financial aid. On the other hand, as the table below shows, both the amount of the tax deduction and its value to the taxpayer rise with income. While the percentage of persons claiming the deduction peaks at an income of $20-$25,000, it should be remembered these figures represent all taxpayers and not just those with children; they also represent the second income in the family.

PERCENT OF TAXPAYERS CLAIMING CHILD CARE EXPENSE TAX DEDUCTION AND AMOUNT OF CLAIM BY INCOME-LEVEL, CANADA, 1987

Income Level	% claiming deduction	Average amount claimed
$ 1 - 5,000	1.2%	$710
$ 5,000 - 10,000	3.1%	$1,109
$ 10,000 - 15,000	4.4%	$1,420
$ 15,000 - 20,000	5.5%	$1,759
$ 20,000 - 25,000	6.1%	$1,963
$ 25,000 - 30,000	4.8%	$1,971
$ 35,000 - 40,000	3.5%	$2,008
$ 40,000 - 50,000	2.9%	$2,125
$ 50,000 - 100,000	2.2%	$2,125
$100,000+	1.3%	$2,534

Source: Revenue Canada (1987). *Taxation Statistics, Taxation Year 1987*. Ottawa: Revenue Canada.

There are several arguments for universality in social services such as health care, primary and secondary education and the universal component of our public pensions. One is that we consider certain services part of a decent standard of living for all members of our society. The second is that people shouldn't have to impoverish themselves in order to benefit from public subsidy. The multiplication of income-tested programs - everything from financial aid to child care to sales-tax, property tax and reimbursable child tax credits -means that the real marginal tax rates of families with fairly modest incomes ($12,000 to $40,000) are, in fact, much higher than those of the richest taxpayers. Universality also means avoiding the middle-income trough we find in child care and every other kind of program (such as public pensions) where we combine an income-tested program with a regressive tax benefit. Finally, universal programmes help build social solidarity around these programmes. The middle class, simply because of its numbers, bears by far the largest share of the tax burden. It should also get its share of the benefits of government expenditures. In recent years, attacks on universality have used the rhetoric that high income families and individuals do not need these benefits. In fact, the reductions in taxes for this category have been much greater than the reduced value of benefits. It is the middle class which has seen its tax burden climb at the same time as it has lost access to services.

In other words, I am arguing for substantial direct subsidies to child care as a move towards the development of a universally accessible service. Contrary to our present system, which combines an income-tested program with a tax deduction, our policy should be "progressive", that is, it should provide subsidy in inverse proportion to income and provide substantial help to middle-income families. This is contrary to narrow market logic but it is essential to equal opportunity for women, to Canadian social solidarity around child care; and, if we believe that formal day care provides higher quality and that it is good for children, essential for the well-being of our future generation.

ENDNOTES

1. For a review of some of this literature, see Monique Proulx. (1978). *Cinq million de femmes, Une étude de la femme canadienne au foyer*. Ottawa, Ontario: Conseil consultatif de la situation de la femme, 43-58.

2. Cooke, K., Edwards, R., Rose-Lizée, R., & London, J.(1986). *Report of the Task Force on Child Care*. Ottawa, Ontario: Supply and Services Canada, pp. 43, 192.

3. Rose, R. (1986). *Les modalités de financement* dans *Actes du colloque sur la qualité de vie dans les services de garde*. Quebec: Office des services de garde à l'enfance du Québec, 166-172.

4. In 1984, Health and Welfare Canada (*Status of Day Care in Canada, 1984*) estimated that were enough licensed child care spaces for only about 7% of children aged 0 to 3 whose mothers were in the labour force. Therefore, an estimate of 20% to include those who claim the tax deduction is a generous estimate.

5. See, in particular, Patti Schom Moffatt, "The Bottom Line: Wages and Working Conditions of Workers in the Formal Day Care Market" and Christine Blain, "Government Spending on Child Care in Canada", both Series 1 of the Background Papers for *Report of the Task Force on Child Care*, Status of Women, Canada, 1985.

6. Office des services de garde à l'enfance, les Publications de Québec. *Rapport annuel*, diverses années.

7. Suzanne Bouchard, *Garder chez soi les enfants des autres. Profil des gardiennes reconnues par les agences de garde en milieu familial au Québec en 1982*. Office des services de garde à l'enfance, Gouvernment du Québec, Collection Études de récherches", Volume 2, 1982.

COMMENTS ON "IDEOLOGY, SOCIAL POLICY AND HOME-BASED CHILD CARE"

Ruth Rose - Université de Montreal

As the last speaker, I have the privilege of trying to tie together everything everybody has said today. And because it's my particular bent to do so, I'd like to tackle some of the policy issues. In doing so, I'm likely to step on some toes, but perhaps mainly on the toes of people who aren't here.

June Pollard's paper is extremely interesting - she has indeed come up with some pearls of insight into the way in which people with differing ideologies see home-based child care and how difficult it is for the women who actually take care of children to see themselves or their work from the point of view of any of these ideologies.

However, in reading her paper I felt that something didn't quite fit. The views expounded on child care didn't seem to mesh with the political ideologies described. I would suggest that the reason is that she's missing one ideology which I will call "conventional welfare-statism" and that her description of attitudes to child care all need to be shifted over one ideology. I think that with this modification, her typology can be very useful in understanding the different political players and the stakes they are playing for on the child-care chessboard today.

Firstly, what Pollard calls the "conservative" ideology seems to me to conform to Duplessis Quebec but also, unfortunately, to some of the views expounded by R.E.A.L.[1] women, to some of the more recent natalist policies in Quebec and to other extreme right-wing groups. Essentially, they don't want any non-maternal child care at all, with two exceptions. The first exception is for the wealthy upper class; they, of course, are allowed to hire nannies in their own home, as they have always done. The second exception is for the welfare poor where the mother cannot or does not take care of the children adequately. For them, charitable institutions are the solution. With this point of view, we come back full circle to the beginnings of organized child care where it was essentially a welfare service for the very poor. Ordinary mothers should be at home with their children and shouldn't be trying to compete in the labour market on equal terms with men. After all, if women would just go back to centering their lives around husbands and children, we wouldn't have so much family breakup, violence, delinquency, unemployment, etc.

The second ideology Pollard describes is the "liberal" ideology in the sense of laissez-faire market capitalism. The child-care policy which fits this ideology, it seems to me, is the one she ascribes to conservatives. Basically, child care, like everything else should go through the market and there should be as little government interference as possible. If women's wages are not high enough to justify the cost of child care, then they would contribute more to social production by staying home to take care of the children themselves. Because these people believe that the "free" market is the infallible arbiter of what should or should not be produced and how much people should earn, they deny the existence of discrimination against women. They even forget their own economic philosophy once in a while and ignore the fact that human capital markets are imperfect and that young women cannot borrow against their future earnings to finance the cost of investment in human capital (learning by on-the-job experience) in the early years when their earnings are low.

This school also believes that private, for-profit child care will provide services the most efficiently - that is most cheaply - and that the government should stay out of the area as much as possible. Again, they are ignoring the fact that most of this care, and particularly family-home child care is accomplished by undervaluing and underpaying women's work. According to this school, subsidizing child care will simply bias parents' choice towards more expensive forms of child care. Some of the more "left-wing" adherents of this approach will admit that if there is a difference in quality and if there are externalities for children, then some government subsidization may be acceptable. Basically, however, the sum total of their child care policy comes down to allowing the deduction of child-care expenses as an expense of working. By and large, this school ignores equity arguments.

In terms of the political chessboard, this ideological school is represented by our present Conservative government and by economists such as Michael Krashinsky[1] or those of the Fraser Institute and we see their influence directly in the development of recent child-care policy on the federal level and in many provinces.

The third ideology is what I call "conventional welfare-statism". It is the ideology which dominated Canadian politics from the time of the Keynesian "revolution" in the 1930s through most of the 1970s and we can associate it to a large extent with the federal Liberal party. Basically, the tenants of this ideology believe in a free-market economy and share many of the ideas of the liberal school. However, they are more inclined to believe that the market has imperfections and that the role of the State is to intervene in those areas where the market fails to provide adequate services or where there are "externalities". In the case of child care, the term "externalities" means that there are benefits to parents or children which are incorrectly valued by the market.

The problem with this school is two-fold. First of all, they tend to be schizophrenic, shifting constantly between a free-market ideology where the State does not intervene and an interventionist approach. The result is the kind of hodge-podge of policy we now have in Canada. Yes, we have supervised family day care homes and licensed child-care centres - both commercial and non-profit private corporations but very few public ones. Yes, the State provides financing, particularly for low-income families and even some direct financing which helps families of all income levels as is the case for our educational institutions and health care. However, we don't have a clear commitment to quality child care nor, incidentally, to women's equality in the labour market.

The second problem with this school is that they tend to see the State "*in loco parentis*". On the one hand, they see child care to some extent as a welfare institution and the emphasis is on providing help to low-income families and, particularly, to making it possible to force lone mothers into the labour market. In the free market ideology, state subsidy to services, as opposed to direct income transfers to the parents, are justified if one believes that society knows better how people should spend their money (on health, education and child care), than people know themselves (on liquor, cigarettes and self-indulgence).

This attitude also leads to a bureaucratic approach to the organization of institutions and to more and more detailed control of how child care centres operate without, unfortunately, giving them commensurate financing. In Quebec, for example, the financial reports which day care centres now have to file are fifteen pages long. The detail is not only useless, it's most likely inaccurate since the categories don't necessarily fit the way in which the centres actually operate. The effect is to force the centres to conform more and more to a bureaucratic model and to take

real control away from staff and parents. In the end, we are likely to get the same kind of low morale and lack of motivation that plague our school system.

The fourth school, which Pollard calls the "reproduction" ideology, I would call "human development" or even "feminist" even though feminism is, itself, pluralistic. The term "reproduction" always suggests to me the purely physical aspects of reproduction. From my unbiased economist's point of view, it's a piece of sociological jargon and only economists are allowed to use jargon--but I don't really want to quibble about semantics.

In some ways, I think this ideology is naive, for example, when those who take this perspective assert - I quote from Pollard's paper:

> The basis for the task [family day care] is mothering, nurturing and neighbourliness. To assume that this is learned through the intellect primarily is alienating; to create a hierarchy of status based on formal education is also alienating. However, to place it outside the public realm is to demean it and to exploit it (Pollard, 1993:110).

Without denying the importance of caring and nurturing, we've had several papers here today which provide evidence that training in child development and structuring of the program in family day care is better for children. In other words, some formalism is necessary to ensure quality services with an emphasis on child development rather than just "babysitting". From the point of view of the State as funder, there do have to be some rules and regulations in order to prevent financial fraud or simply inefficient use of public funds, not to mention child abuse.

But beyond these concerns, the message of the women who adhere to Pollard's "reproduction" ideology is the need for a more holistic and feminist approach to the delivery of services. Workers in shelters for battered women have been developing and articulating this kind of approach for many years. In my opinion, this brand of feminist ideology provides one the most important challenges of our time to bureaucratic welfare statism. Is it possible to provide public financing at adequate levels to a wide variety of public or non-profit private institutions, to institute some basic safeguards and accountability procedures without at the same time imposing a deadening bureaucratic superstructure?

For local services to be able to respond to the needs of their "clients", they have to be able to organize an overall approach and to make room for the human relationship between the intervenor and the client rather than by chopping up the problems into so many different categories, each to be dealt with by a narrow specialist. Financing by narrow service category leads to this kind of delivery. Telling child care workers that they have to spend so many minutes a day on story-telling, and so many minutes on large motor skills, and that group sizes have to be always such and such, and that all workers must spend six hours a day, five days a week with the children, and three hours on this and two on that, will only lead to inflexibility and demoralization. Yet, that is how we run our schools.

Much of the conservatism we are experiencing today is the result of a backlash towards the "conventional welfare-statism" that dominates most of our public institutions. That is why, in my opinion, we need to look for new models that provide for true participation and true control over our working and family lives.

I don't have much to say about Pollard's "socialist" ideology because I don't know what "socialism" means any more, especially with the crumbling of Eastern European economies and social institutions - which never were socialist anyhow.

I would like to say a few words however, about the attitudes she ascribes to "socialists" and particularly the trade union movement. To some extent, I think their concern with formalization of relationships both in terms of government responsibilities and the presence of traditional trade-union organizations for child care providers reflects their position within the conventional welfare state. Our modern market economies do not have very much respect for workers and confrontational trade unionism has been the only way for workers to protect themselves against exploitive employers. This has led to a preoccupation with strict rules governing such things as job definitions, layoffs and promotions, as well as an attitude that the role of the union is to get as much as possible from the "boss" without taking any responsibility for the operation of the business. This kind of attitude is the natural outcome in a society where jobs are scarce, where business seeks constantly to cut costs at the expense of its employees and where the emphasis is on individualism and management rights. In other words, a free-market economy leads to the alienation of a large number of workers from their jobs. To a large extent, bureaucratic and protectionist trade unionism is the natural counterpart of the conventional-welfare-state, free-market economy in which we live.

In these latter days of Reagan-Thatcher-Mulroneyism, governments have encouraged the development of non-profit, community-based organizations to provide child care and other grass-root services because they are so much cheaper than public institutions which have to pay union wages and provide decent working conditions, fringe benefits and job security. Government has taken advantage of the fact that women care enough about children to fill in the holes in what should be a basic public service by providing unpaid or, at best, underpaid labour. The "reproduction" ideology that Pollard describes is also a reaction against the alienation that many workers feel towards their jobs. Women taking care of children, whether in their own homes or in child care centres, want to be able to "control" their job, to "control" their relationship with the children and their parents, to feel that they are providing a warm, human milieu. According to Pollard, this shows up in the way family day care providers discuss what they want in the way of employee status and working conditions:

> The two principles which surfaced here were those of employment rights of providers on the one hand with flexibility of service and autonomy for providers on the other. The state employee status was seen as the best way to positively ensure proper pay, benefits, etc. across the country. On the other hand, there was concern that if the state tended to be bureaucratic and patriarchal, that status could create rigidity in what the provider can and cannot do, and would not necessarily reflect the ways that he/she might want to best care for children, thereby making it difficult for caregiving to be creative and innovative, as well as sensitive and accountable to local community needs and concerns (Pollard, 1993: 111).

In the current political and economic situation, trade unions and community organizations often see themselves in conflict. On the one hand, trade unions are fearful that government will contract out services (which have been, or might have been unionized) to non-profit community organizations precisely as a way to weaken the unions and to lower wages and erode working

conditions. Community organizations, on the other hand, are fighting for better financing and, therefore, better working conditions. But they don't want the detailed control and the parcelization of the job which comes with full status as a public institution.

Is there any way out of this dilemma? In my opinion, that is the central question of our political era. The Cold War period, to a large extent, posed the question as a choice between a bureaucratic state and a completely laissez-faire market. With the progressive disintegration of the Soviet model, there is a danger that no alternative model will challenge the individualistic, capitalistic model. Among others, the Scandinavian countries have done some interesting experimentation with locally controlled, centrally financed social services[2]. Certain Canadian institutions, in particular day care centres, shelters for battered women and alternative resources for the mentally ill, also provide us with some useful models.

I think this question is also relevant to our own Canadian constitutional debate. When people say they want national programs, what they mean is that they want all provinces to have the means to provide the same standards of service all across the country. In fact, most of our cost-shared programs don't score very high by this criterion. To the extent that the federal government matches provincial expenditures, as in the Canada Assistance Plan (C.A.P.), which is the main federal source of direct funds to child care, the poorer provinces get far less than even a per capita rule would give them. The "capping of C.A.P." to the "richer" provinces is only a prelude to further cuts in federal spending on social services. We need rules which will direc tly provide for much higher proportional subsidies to the poorer provinces.

On the other hand, when Western Canada and Québec, and even the Maritime provinces which have the most to lose from federal withdrawal from social programs, say they want greater provincial autonomy, what they mean is that they want more local control over programs, an end to federal-provincial duplication of services and the ability to better coordinate and rationalize the different programs. Here again, the solution lies in central financing and local administration to a much greater extent. But, in this case, financing rules must also allow for much greater flexibility. In the case of child care, for example, it should allow provinces to choose their own combination of financial aid to parents with low income and direct operating grants to child care services. I do think, however, that rules restricting the use of public funds to non-profit or publicly-run services should remain in force and be equitably applied to all provinces.

ENDNOTES

1. Krashinsky, M. (1987). The Cooke report on Child Care: A critique. *Canadian Public Policy*, *XIII:3*, 294-303.

2. See, for example, Élaine Carey-Bélanger, *Une étude comparative des systèmes de bein-être social avec référence particulière à l'organization des services sociaux: Finlande, Suède, Québec.* couvernement du Québec, Commission d'Enquête sur les Services de Santé et les Services Sociaux, (Commission Rochon) Synthèse critique 39, 1987.

CHILD CARE POLICY: WHAT CAN RESEARCH TELL US?

Meetings of the Canadian Association for Teacher Education
and the Canadian Society for the Study of Education

Duncan McArthur Hall
Rm. 239, A Wing (West Campus)
Queens's University

Kingston, Ontario, June 3, 1991
9:00 a.m. to 5:45 p.m.

PROGRAM SCHEDULE

Session 1 **10:00 a.m. to 12:15 p.m.**

INTRODUCTORY REMARKS

Martha Friendly, University of Toronto

CHILD CARE POLICY: PERSPECTIVES OF RESEARCH RESULTS FROM DIFFERENT DISCIPLINES

- *The Implications of Psychological and Early Childhood Education Research for Public Policy on Day Care*
  Nina Howe, Concordia University, Montreal

- *The Economics of Child Care Policy*
  Gordon Cleveland, Brock University

- *A Sociological Perspective on Child Care Research*
  Maureen Baker, McGill University

Chairperson: Steen Esbensen, Université de Québec á Hull

Discussants: Martha Friendly, University of Toronto
Irene Kyle, University of Guelph

Session 2 **1:30 p.m. to 2:45 p.m.**

THE CANADIAN NATIONAL CHILD CARE STUDY

- *The Canadian National Child Care Study*
  Donna S. Lero, University of Guelph
  Hillel Goelman, University of British Columbia
  Lois M. Brockman, University of Manitoba

Chairperson: Howard Clifford, Health and Welfare, Canada

Session 3 **3:00 p.m. to 5:45 p.m.**

CHILD CARE: CURRENT RESEARCH

- *After-School Child Care*
  Ellen Jacobs, Concordia University, presenting work by herself and colleagues: Donna White, Concordia University, Madeleine Baillargeon, Laval University, and Raquel Betsalel-Presser, Université de Montréal

- *Projections of the Effect of Government Child Care Policies on Parents' Choice of Child Care Arrangements*
  Gordon Cleveland, Brock University
  Douglas E. Hyatt, University of Toronto

- *Political Ideology and Family Day Care: A Comparative Analysis*
  June Pollard, Ryerson Polytechnical Institute

- *Quality of Care and Child Development in Family Day Care*
  Hillel Goelman, University of British Columbia

Chairperson: Kim Kienapple, Mount St. Vincent University

Discussants: Ruth Rose-Lizee, Université de Québec á Montréal
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