

## **Introduction**

This paper is intended to show why Canada should increase funding for child care, using economic reasoning. Research shows that the most important learning stages occur in children before they are six years old. Canada ensures that children receive a quality education after they are six but neglects the importance of preschool education. Traditionally, this education has been seen solely as the responsibility of parents. However, parents differ in their abilities, and often require assistance in providing their children with the greatest opportunity to develop. It is my view that Canadian governments, at both the federal and provincial levels, should be financing preschool child care providers so that all children have access to affordable, high quality care outside of the home. This is clearly a good social goal, but it is also a good economic goal.

Child care differs from other commodities because the free market model does not lead to the most efficient possible outcome. In other words, there are market imperfections. Child care has a public good externality. This means that when children consume quality child care, there is a benefit to society. Parents make child care choices for their children and if they do not consider these societal benefits, they will undervalue quality care. Thus, from society's point of view, not enough child care will be purchased. Additionally, even if parents have the interests of their child in mind, parents may not select the most beneficial type of care. There are a variety of reasons for this possibility. If the price of child care is left up to the free market, many parents will not be able to afford quality child care. Also, parents may value attributes of child care other than the developmental outcomes that care will have for their kids. Finally, even if parents do value developmental quality, they may not be able to judge if a certain caretaker can provide it. When we allow these situations to occur, we as a country miss out on the benefits that quality child care has repeatedly demonstrated it offers.

Furthermore, free market child care intensifies market failure in the labour market. Lowering child care costs could encourage more parents to increase their labour force attachment. This could save money for Canada by reducing welfare payments. At the same time, parents would increase their incomes which would benefit their entire family.

Additional funding for child care could help overcome all of the market imperfections which result from free market child care. The ideal funding strategy would be to extend grants to child care providers and require that they provide a certain level of quality. Enough providers would need to be funded to create a space for every Canadian child whose parents wanted them to participate in the program. Available data suggests that the benefits of such a program would outweigh the costs and that the initial costs would not be unbearable. Recent demographic and fiscal conditions make the present the perfect time for Canada to adopt a new child care funding strategy.

### **The importance of the preschool years**

Currently in Canada we rely on the public education system, starting in kindergarten, to give all citizens a standardized education that benefits both the students and society as a whole. This education is intended to provide youth with skills to enter the labour force as well as moral and social skills that will help society to function in a civil and democratic manner. Naturally, we hope that kids in the public school system are also learning such skills from their parents and other teacher figures outside of the school system. However, parents differ in their abilities to provide the time and skills necessary to ensure a proper education. The school system assists parents in the task of giving kids a stimulating and enjoyable environment to maximize their potential as members of society. Although there are many people who are not satisfied with the curriculum, staff or other aspects of the way the public school system is run, few Canadians disagree with the system itself. There are those who advocate a school 'voucher' program where

parents receive money from the government which must be spent on the education of their children. However, such a system implies market imperfections of the same variety as those that already exist in the child care market.

It can be safely said that people would not react positively to a decision which left the finance of the public school system up to the free market. However, this is not the case for any kind of preschool education. When children are between the ages of zero to five, it is the sole responsibility of their parents to provide the care and nurturing that will lead to mental, physical and social development. If parents feel that they need help in providing this care, they can buy child care. Parents who would like to purchase child care are prepared to pay a certain price for this service. If there is someone willing to supply the care at that price, then the child care will be purchased. If care is inadequate, parents can seek alternate suppliers. If the benefits of the child care do not outweigh the costs, then parents are not required to purchase child care. In this scenario, parents maximize their utility by not purchasing child care at the market price and either having one parent stay home with children or by leaving children with a relative or friend who is willing to supply child care at a cheaper price.

For most commodities, the free market system provides an optimal outcome through the maximum amount of transactions which will benefit both the supplier and the consumer. However, the child care market is 'imperfect'. Parents are the purchasers, but they do not receive all the benefits. Child care can have benefits for children who are actually the 'consumers' of the product. We don't seem to have a problem with this logic in the kindergarten to grade 12 market, which suggests that the education received during these years is more beneficial. However, there is new evidence that the years before school are the most important for human learning and development. Thus, it makes little sense for governments to withhold funding for preschool care. This argument has been progressively gaining support over the last ten years and child care

advocates, as well as the public, have been putting increased pressure on governments to implement new policies. Government promises and commitments are becoming more common but action has been slow to follow.

One of the most influential arguments for supporters of publicly funded child care is the growing body of research which suggests that the most important stages of brain development occur between conception and age six. This time frame is not only critical for absorbing and learning information, but it is also a time when neural wiring develops in the brain. Neural connections allow individuals to perform certain functions and develop problem solving skills. The effects of a lack of such stimulation can be irreversible. The learning that occurs between the ages of zero to six also provides children with a basis of school readiness. Children's relationships towards school begin as soon as they enter kindergarten and the patterns that are established are often hard to break. Children who are not adequately prepared to enter school may have difficulty absorbing class material and developing peer relationships in kindergarten. A situation is created where children are, right from the start, averse to school and less likely to succeed. This can lead to a higher incidence of dropout, decreased future earnings and higher rates of delinquency.

It is easy to see how good child care starts a chain which can lead to better outcomes in the future. If children enter school with abilities that facilitate learning and establishing peer relationships, they gain confidence and react positively to school. This in turn impacts social and academic performance which further develop confidence and encourage attendance. Increased confidence and attendance are equated with students getting more out of the education provided and their ability to apply the skills they have learned after graduation.

Two recent Canadian studies have specifically shown why the learning environments and care received by children in the age group 0-6 are so important for their development and future.

The first is entitled *The Early Years Study: Reversing the Real Brain Drain* co-chaired by Margaret McCain and Fraser Mustard. This study was commissioned by the Ontario government to provide options and recommendations with respect to the best ways of preparing Ontario's young children for scholastic, career and social success. Although the study is reluctant to recommend specific funding policies, it demonstrates how the current system is inadequate and is moving in the wrong direction by decreasing funding. Besides P.E.I. and Quebec, the inadequacy of Ontario's system is fairly representative of all the provinces. ( CRRU 2000 p96)

According to the study, 'brain development in the period from conception to six years sets a base for learning, behaviour and health over the life cycle.' Maximizing this development will help to ensure 'a highly competent and well-educated population, [which are] necessary for a strong economy and a thriving democracy.' (McCain and Mustard p8) The study suggests that there are periods of brain development, occurring at a very young age, where a child is stimulated through the five senses. This stimulation establishes the neural pathways that are necessary for regulating arousal, emotion and behaviour. Some of the faculties developed during these critical periods include: binocular vision, emotional control, habitual ways of responding, language and literacy, symbols and relative quantity. Since such important faculties are learned through stimulation of the senses, the manner in which caregivers relate to children at these ages is crucial for the child's future. 'The active interplay of early stimulation of the brain through the sensing pathways with the basic genetic structure of the brain has a direct and decisive effect on a child's brain development, which has a long-term impact on the adult the child will become.' (McCain and Mustard p26) *The Early Years* study makes its recommendations based on the premise that:

early experiences and stimulating, positive interactions with adults and other children are far more important for brain development than previously realized. This period of life is as important for an educated, competent population as any other period. Given its importance, society must give at least the same amount of attention to this period of development as it does to the school and post-secondary education periods of human development. (McCain and Mustard p7)

Providing quality child care would be one of the ways that this goal could be achieved.

Another recent Canadian study highlighting the importance of the preschool years is *Zero to Six: The Basis for School Readiness* by Gillian Doherty. This study also shows how these years can be critical for brain development with an emphasis on how the learning in these years can give children a good learning base upon which they can build in public school. The paper has two main purposes: 1) to identify the physical, emotional, social, language, and cognitive skills required within a child so that the child, at age six, is ready to take advantage of the learning opportunities offered by the formal school system; and 2) to explain why and how the period from conception to age six is so important for laying the foundation for academic achievement and later adult success, especially in the labour force. Generally, Doherty finds that school readiness at age six predicts children's ability to benefit from academic instruction in the early grades of elementary school. She analyses the process whereby a child's success in the first years of school is in turn, a significant predictor of whether the child completes high school. Even if the child does end up graduating, not being properly prepared to enter school can result in the need to repeat a grade or to receive special education services. When students drop out of school or require additional resources to graduate, it costs society as a whole through:

- 1) lost government revenue;
- 2) increased government expenditures;
- 3) decreased ability to be competitive in the global market; and
- 4) decreased ability to provide functions that are essential for the smooth functioning of the society as a whole. (Doherty 1997 p6)

After demonstrating the importance of school readiness, Doherty defines what it means to be ready to learn in the public education system. She argues that the abilities children should be acquiring prior to entering school are of a much broader nature than the traditional notion of

language and possibly arithmetic. She identifies five important components which go beyond the traditional concept of school readiness:

- 1) physical well-being and appropriate motor development;
- 2) emotional health and a positive approach to new experiences;
- 3) age-appropriate social knowledge and competence;
- 4) age-appropriate language skills; and
- 5) age-appropriate general knowledge and cognitive skills. (Doherty 1997 p26)

The study discusses the importance of each of these components and briefly describes the ways in which caregivers can ensure that children are school-ready in all these fields. Doherty posits that 'children who enter elementary school with good social skills, the ability to handle frustration and stress, physical well-being and age-appropriate motor skills, and a solid base of language and cognitive skills are able to take advantage of the learning opportunities offered by the school.

(Doherty 1997 p28)

Doherty also examines the importance of the relationships children develop at these ages. A child who establishes a relationship with a caregiver that is caring and supportive with frequent interaction, develops what psychologists call secure attachment. If a child has a series of secure attachments, they can be 'expected to perceive themselves as worthy of love and to approach others, including peers, with positive expectations'. (Doherty 1997 p31) This is true even with non- parental caregivers. In fact, an American study finds that 'children whose attachment to their non-parental caregiver was secure have been found to be more sensitive and empathetic with peers, less frequently aggressive with other children, and to initiate contact more frequently with peers when four-year-olds than children whose attachment was insecure.' (Howes and Hamilton p869)

In the section on development of social competence, Doherty discusses how relationships with similar age peers can be as important as relationships with adults and children of a different age. This is because 'the relationship between adult (or older sibling) and child is inherently unequal in that one person has more power than the other. In contrast, no child in a peer group has formal authority over others and the individuals perceive themselves, more or less, as equals.' (Doherty 1997 p31) Since the features of the two types of relationships are different, they each benefit the child in a different way. 'Relationships with adults or older children provide a context for instruction and guidance. Relationships with similar age children provide the opportunity for interaction in equal status situations. These enable the child to learn and practice the skills required for social competence in adulthood, for example, negotiation, reciprocity, and handling competition among peers.' (Hartup quoted in Doherty 1997 p36)

As was talked about in *The Early Years* study, the *Zero to Six* paper also focuses on the critical periods of child development. These periods are specific times when the 'child is at a particular developmental level and is biologically primed to develop more advanced neural structures and/or skills provided the appropriate stimulation is available.' (Doherty 1997 p64) Both studies warn that failure to capitalize on these critical periods can result in irreversible deficits. Generally, if certain skills are not developed between ages zero and six, they can be developed in later years. However, the effort and resources used to compensate for lost opportunities in early childhood can be very costly and take time away from development in other areas. Table 1 shows that there are negative effects for society when children's language skills are not developed at a time when they are psychologically most receptive. (See tables at end)

By stressing the importance of the need for quality care and stimulation between the ages of zero and six, both of these studies clearly establish the groundwork for the argument that child care can be beneficial to children. The aim of a publicly funded and regulated child care system



would be to capitalize on these critical periods. This would give children the proper developmental environment to allow them to maximize their abilities in the five areas specified by Doherty. This is especially important for children whose parents are attached to the labour force.

When children enter the public school system equipped with a wide range of skills, they have a better chance of staying in school and earning higher incomes as adults. By providing kids with these skills, quality child care benefits society through increased tax revenues associated with higher incomes, and reduced costs because of a lower drop-out rate. Therefore, quality child care, has a 'public' benefit. Child care is a 'mixed' good because it has both private and public benefits. In the following section, I will show why this feature of child care creates market failure in the free market model. In other words, without intervention in the child care market, society distances itself from optimality.

### **Parents are the purchasers but not the consumers of child care**

There is market failure in the child care market due to 'externalities'. An externality is 'any action by an individual or firm that directly affects others beyond any effect communicated by the price system.' (Atkinson and Stiglitz p8 quoted in Walker p71) Parents make the spending choices about child care so the value they attribute to child care determines the demand curve in the child care market and combines with the supply of child care to determine price. Nevertheless, it is children who consume the product and reap the direct benefits of a comprehensive preschool education. If when these kids are grown, they use their enhanced education to innovate and contribute to the economy, then the education they received in child care benefits others as well. There is a 'spillover' benefit to society.

If parents do not take these societal benefits into account when making child care choices, then the true benefits of child care are not being weighed against the costs. Parents pay for their children to receive benefits, but in doing so, they enable the rest of society to benefit from their children's increased capabilities at no cost. These extra societal benefits are a positive externality of child care. As child care advocate Martha Friendly states, 'if self-reliant families, a healthy, proficient citizenry and cohesive, compassionate communities are desirable features of a society, and high quality child care contributes to their formation and maintenance, then the larger society gains' (Friendly 1997 p5). In general, these societal benefits are hard to quantify. They can be viewed as the indirect benefits of providing children with an early childhood education that will enhance their ability to contribute positively to their communities.

If parents take these societal benefits into account when making child care choices, we need not worry about market failure due to the public good externality. It is more likely however, that parents do not consider benefits other than those received directly by their child. Furthermore, since parents still make child care choices, there is no guarantee that they will even consider all of the direct benefits available to their child. Parents may decide that earning income to pay for their kids' college education is a greater priority than providing the most stimulating environment possible before their kids enter school. Consequently, they may decide to enter the labour force to earn income, and cut costs by deciding to buy child care that is safe but not necessarily intellectually enriching.

The idea that parents may not always choose the option that is in the best interest of their children in mind is controversial but it deserves attention. There can be market failure because parents do not purchase sufficient child care as a result of not giving enough weight to the developmental benefits of child care. More importantly, parents may find themselves in a situation where they are aware of the benefits that child care can provide, but simply cannot

afford to pay for them. The benefits to the child may outweigh the costs of child care, but obviously children cannot borrow against future earnings to purchase child care. Without government funding and regulation, the potential benefits to children, along with any associated potential spillover benefits of child care, may not be realized. The need for funding becomes even more apparent when we consider studies that show that quality child care has long term benefits and directly leads to greater success later in life.

The studies that were discussed in the previous section illustrated the importance of the early years by highlighting the role of certain critical stages of brain development. These studies discussed how quality child care can help to ensure that children do capitalize on their developmental potential. Proper nurturing and stimulating environments provided to children between the ages of zero and six establish certain abilities as well as physical brain development which benefit the child for the rest of his/her life. To argue that child care can have better developmental outcomes on a long term basis for children who participate, evidence must be introduced. There are a multitude of studies, mainly from the sociology and child psychology fields, examining the effects of child care. Those most useful for my purpose are studies which explore the longitudinal effects of high quality child care, comparing those who participate with those who don't. Such studies must control for factors such as family income and the child's gender. Two European studies seem to be recognized as the most thorough in establishing longitudinal effects.

The first of these is a Swedish study conducted by Bengt-Erik Andersson, published in 1992, entitled *Effects of Day-Care on Cognitive and Socioemotional Competence of Thirteen-Year-Old Swedish School Children*. 'A form of regression analysis is used which controls for various family background factors, for the gender of the child, and for the child's native intelligence. With these factors controlled, the earlier a child entered centre or family day care,

the stronger the positive effect on academic achievement at age 13.’ (Child Care Policy Forum)

Children who entered child care before their first birthday scored 19% higher on academic tests at age 13 than they would have without any exposure to child care. ‘In evaluating these results, it is worth remembering that Swedish child care is of uniformly high quality.’ (CCPF)

The second study is an English study by A.F. Osborn and J.E. Milbank called *The Effects of Early Education: A Report from the Child Health and Education Study*. This study used a very large sample, drawing all children born in the United Kingdom in one week of April, 1970. ‘The children were assessed using cognitive and educational tests at five years of age and then again at ten years.’ A variety of statistical techniques were used to process the data. The gross mean differences on various types of tests at ten years of age were calculated for children with different child care backgrounds. (CCPF) The findings of the study are significant because ‘overall differences in the children's mean scores according to their preschool experience were large relative to the effects of other social and family factors.’ (Osborn and Milbank p213)

Even though these studies do not track child care participants through to adulthood, it is clear that the school readiness they gained was advantageous and was not dissipated upon entering the school system. Presumably, these trends continued through the children’s school years and resulted in lower drop out levels, a greater grasp of the material and more opportunities after high school graduation. It is a reasonable assumption that everyone in a society benefits from high graduation rates. However, parents are likely to recognize that diplomas will be availing for their kids, and will make child care choices accordingly. No market failure arises as long as parents only consider the attributes of child care options that will have developmental benefits for their kids. Realistically however, such a method is unlikely. The belief that parents have different priorities than their kids is often considered an accusation of bad parenting.

(Cleveland and Krashinsky p38) On the contrary however, it is a logical assumption to make about even the most loving and concerned parents.

In the free market model, quality child care is a scarce good amongst many from which parents are left to select the optimal bundle. The optimal bundle results in the highest 'utility' or satisfaction. In the case of child care, utility is based on many factors. These factors certainly include developmental benefits to the child, but utility is also gained from benefits to the parent. Utility decisions by parents need not be viewed as selfish. On the contrary, parents may be substituting high intellectual quality child care in favour of other measures of quality which could provide parents with more money and time to help their kids in other areas. However, society benefits from ensuring that kids receive quality care in all areas and so to avoid market failure, society has a responsibility to pay for some of this quality.

When perfectly competitive goods are considered, the utility decisions are only quantity decisions. That is, a good like bottled water can be seen as homogenous across producers so utility decisions are not based on which brand is consumed, but rather only the quantity consumed. However, child care is a heterogeneous commodity. This means that different child care options differ in the services they provide. The relevant decision for parents is *which* child care to buy, not *how much*. Child care services 'possess many dimensions such as price, convenience, reliability, availability, and quality, to mention only a few' (Walker p55). If any aspect of a child care purchase decision is based on attributes which a parent considers desirable for reasons other than developmental benefit, the best possible outcome for their child will not be achieved.

Many child care advocates believe that this is exactly what occurs when child care does not receive sufficient funding. There is no implicit market imperfection in a parental decision

based on a personal benefit, such as convenience of centre hours, to choose a child care arrangement. A benefit to the parent is a benefit to society. However, parents have limited funds with which to buy child care. Since parents define quality as a bundle of attributes, and not just as quality in terms of child development, child development may be sacrificed for other factors. As Cleveland and Krashinsky note:

Parents make choices for their children in very constrained circumstances. The choice of a child care arrangement is a balancing act- balancing the cost of the care, the convenience of the arrangement to a parent who has to drop off and pick up every day, the apparent quality of the care, the special needs and expressed feelings of the child, the degree of contact with the child's current friends, and many other factors. The point here is, in a sense, obvious, but it may have profound implications. Parents do not choose care of ideal quality; rather they try to choose child care with the ideal mix of cost, convenience, quality and other factors.' (Cleveland and Krashinsky p38)

It is quite reasonable to assume that even the most caring of parents take factors that are not based on child development into account when choosing a child care option. Proximity to home is one such attribute that parents will pay a lot for. A low child/staff ratio is obviously an attribute that would provide children with a greater ability to interact, learn and develop to their maximum potential. However, the National Longitudinal Survey of Youth conducted in the U.S. in 1990 did not find any evidence that child care arrangements that have lower child-staff ratios are more expensive. (Waite et. al p236) This trend is consistent with the idea that when parents judge the quality of child care they do not only consider the criteria stressed by child development experts. Parents who used better quality care by child development standards 'typically did not pay more than other parents, which may indicate that parents do not value the characteristics of quality care as highly as other characteristics of care.' (Kisker and Maynard 130)

Since price is one of the characteristics that influences parents' choices regarding child care options, income is a crucial determinant of the decisions reached. This has very important implications for the child care debate. Even if low income families desire quality child care, they may not be able to afford it. Although the affordability of child care has been seen as a 'social

goal', it is clear that making child care more affordable is also good economics. This is especially important since economic and social changes in Canada have vastly changed the face of the Canadian family over the last twenty years. Single parent families and two income earner families are much more common. (StatsCan) The National Child Care Study demonstrated that, in 1988, 12.6% (278,000) of two-parent families with children under age 13 had family incomes below Statistics Canada's 1987 low-income cut-offs. If both parents had not been working, the number of two-parent families with incomes below the poverty line would have been 550,000, that is, almost double (Doherty et.al). In 1997, 59 percent of all women with children under three and 62 percent of all women whose youngest children were between three and five years old were employed. (National Council on Welfare)

Parents may be increasing their labour supply to increase their incomes in an effort to be able to provide more for their kids. They may choose a child care option that makes it easy for them to do so. Funding child care will make it more likely that parents will choose child care that will facilitate their ability to earn income as well as being developmentally beneficial for their kids. Obviously funding implies an increase in government spending which may be viewed as an unnecessary cost. However, because child care has been shown to have societal benefits through the children it enriches, the societal costs of increased funding are likely to pay off. The funding serves to correct the market imperfection that results from parents not being able to afford child care, or not taking the benefits of the developmental aspect of child care into account.

The percentage of parents who are in the labour force clearly shows that child care is a major Canadian issue. As a result of their need to work, parents need to find care for their pre-school kids during work hours. As the system currently stands, parents have options. They can use unregulated care, pay for good care or drop out of the labour force. Also, parents whose incomes are below a certain level, qualify for a provincial subsidy to supplement their child care

spending. These subsidies help to correct market imperfections in situations where parents know the benefits of quality child care but can't afford to pay for them. However, as was demonstrated above, parents may not choose the child care option providing the greatest developmental benefits to their kids regardless of household income.

There will be market failure as long as any parent chooses child care based on a variety of attributes, rather than simply based on developmental benefits for the child. Increased funding to all parents for child care would make all forms of child care more affordable. Consequently, parents would be more likely to choose options that are greater in all of the attributes that they value. Obviously a stimulating environment is one these attributes and it follows that all parents may choose higher quality care or move their children from no care into care. However, a system of direct subsidies to all families would be very costly and would not eliminate the situation where parents make choices among heterogeneous options and may substitute developmental benefits for other benefits. A much more efficient system would be to fund child care through grants to child care providers and enforce quality standards on these providers. This would make child care more affordable while at the same time ensuring that children were receiving care with developmental benefits.

Subsidizing child care is a sensible way to help low income parents in the labour force ensure that their children will receive quality care. It eradicates the lost benefits to society when these parents can't afford child care or must choose a low-cost, low-quality service. Funding also creates a more equitable system. If there is public interest in equal opportunity for children, then inequality among parents represents market failure. (Cleveland and Krashinsky p14) Usually efficiency takes precedence over equity in economics arguments, but if inequity is seen as a market failure then a more equitable system is a more efficient system and the argument for public funding follows.



By increasing funding Canada can improve the quality of life of its residents. There appears to be fairly strong evidence that there is market failure due to externalities and inequality in the child care market. Either because quality care is unaffordable or utility is derived from factors other than the level of stimulation that children are receiving in child care, parents may not always make the best choices for their kids. If they don't make the best choice for kids, then they don't make the best choice for society. Canada seems to accept this reasoning with regards to public education but not for early childhood education. The need for expanded child care funding becomes even more apparent when other market failures associated with child care are explored.

### **Other Market Failures Associated with Child Care**

I have shown why the public benefit associated with child care means that child care left to the devices of the free market with no intervention, will not result in the most efficient outcome possible. I have also briefly discussed the argument that government spending on child care would reduce some of this inefficiency. The case for funding however, becomes much stronger upon further examination of the roots of inefficiency which funding would be intended to reduce. In other words, it is important to note all of the market imperfections, both in the child care market and in other markets, associated with child care. Only then can it be determined what funding option is optimal in correcting the greatest amount of market imperfections and coming closest to the optimal situation for society.

Although I have been focusing on the benefits of child care to the child, traditionally the argument for more funding has been concerned with the societal benefits to parents. Recently, this has been especially relevant with the growing numbers of single mothers. Single parents who join the labour force do not have the option of strictly using parental care. Furthermore, if it is

considered desirable that single parents enter the labour force then child care must be affordable and accessible for these parents. It is a widely held view that there are market imperfections in the labour market that create a situation where a free market for child care can act as a detrimental barrier to labour force entry. These market failures are described below along with discussions about funding alternatives which could potentially correct them.

There is market failure in the labour market because of the tax on earnings. The private decision of individuals whether to enter the labour force or not is based on the income they will receive by doing so. (Cleveland and Krashinsky p15) However, the benefit to society of their entrance into the labour market is their gross income. Therefore, as in the childcare market the optimal amount of labour may not be achieved because of the difference between public and private benefits. In Canada we have decided that we are willing to forego the benefits associated with this market imperfection. In return we gain the benefits of tax-financed public goods while redistributing income for a more equitable system. However, if tax benefits do not make up for labour market imperfections, drawing people into the labour force would be beneficial.

An example of an inefficient tax with regard to the labour market is the decision to prohibit the full deductibility of child care. Child care can be viewed as a cost of earning income. Therefore, child care is a cost associated with having the ability to pay income tax. If parents pay for child care from their after tax income then they are paying more than the actual cost. If this is the case then they are likely to make a decision about labour market participation that is inefficient for society. (Cleveland and Krashinsky footnote p15) In other words, 'if parent provided child care is untaxed, but income earned to replace parent provided childcare with other care is taxed, the tax system will create strong incentives for parents to care for their children at home, distorting individuals behaviour.' (Vincent and Woolley 15) This is described as the neutrality rule: 'Since the self-provided services of child care are not taxed, the working wife

should not have to pay tax on the dollars she earns simply to replace those services. Put another way, the cost of child care - whether performed by a natural parent or a paid third party - should not be taxable.' (McCaffrey quoted in Vincent and Woolley 15)

Therefore to maximize the efficiency of labour market decisions, the government must provide full deductibility for child care expenses. Canada currently provides deductibility which covers most families' child care costs. (Vincent and Woolley 12) The Child Care Expense Deduction, or CCED, provides a deduction of up to \$7000 dollars per year per child for children under 7, and \$4000 for children between 7 and 16. However, the deductibility which would fully negate the taxation of earnings market failure as a result of child care 'would go significantly beyond the arrangements in current Canadian tax code. It would require that this deductibility apply to all taxes on income, including payroll taxes (unemployment insurance premiums and Canada Pension Plan contributions, including both employees' and employers' portions of each.' (Cleveland and Krashinsky p15)

Child care deductibility would provide 'horizontal equity' because only the income earned on top of the income needed to pay for child care would be taxed. However, deductibility decreases 'vertical equity' because the deduction would have a greater benefit for people in higher tax brackets. Deductibility does not provide a large incentive for low income earners to join the labour force. Society has the most to gain by encouraging low income parents, especially those collecting welfare, to increase their labour force participation. Therefore, if providing deductibility is intended to encourage low income parents to join the labour force, it may not provide enough of an incentive to accomplish its objective. A contention that must be raised here is that once deductibility is offered, disregarding the previously discussed effects on children, there is no reason that the high price of child care creates inefficiency. Several studies show that the price of child care affects parents labour market decisions (Cleveland et al. p136). However,

as long as parents have full deductibility, there would be no reason to encourage them to take jobs outside of the home if child care were too expensive and they could maximize their utility by staying at home.

This contention seems economically logical but encounters difficulty when we consider welfare. There is labour market failure because of the existence of welfare. (Cleveland and Krashinsky p18) Parents receiving welfare pay incredibly high tax back rates meaning that when they start to earn income, they start to lose their welfare payments. Making the decision to work may only provide them with negligible amounts of additional income. Parents collecting social assistance are then firmly discouraged from joining the labour force despite the fact that getting them off welfare would have huge public benefits. A study by Gordon Cleveland and Douglas Hyatt discusses subsidy options that could help to attain these public benefits. The study explains the current subsidy allocations given by provincial governments and why these subsidies may not be creating efficiency in the labour market. If the minimum income allowed to get a full subsidy was increased, and the tax back rate lowered for any income earned above that minimum level, many lone mothers using social assistance could be encouraged to join the labour force. Although there would be the immediate costs of implementing the program, the social assistance costs that would eventually be erased would more than make up for the original costs. The subsidies would, in effect, 'pay for themselves.' (Cleveland and Hyatt p4)

The Cleveland and Hyatt study entitled *Subsidies for Childcare: A Good Bargain for Canadian Governments?* concludes that the current provincial provisions of subsidies could be changed for the benefit of society. The study highlights the striking numbers of single mothers who are on welfare and who are among those who currently qualify for a child care subsidy. According to StatsCan, 'close to 50 percent of lone mothers report that they receive social assistance income each year, including about 58 percent of lone mothers below 35 years of age.

The percentage of these younger lone mothers who receive welfare has increased from 43 percent in the mid-1970s.' (Cleveland and Hyatt p4) Obviously, in one-parent families, child care is something that must be considered when making labour force decisions. If welfare is a barrier to labour force entry, then the unaffordability of child care hurts society even more through the lost benefits to children and the lost benefits to the labour force. It is obvious then why 'it has long been contended that child care subsidies for low-income Canadians are a good deal for Canadian taxpayers.' (Cleveland and Hyatt p4)

Subsidy structures are left up to the provinces and vary across the country. Cleveland and Hyatt use a representative subsidy structure to demonstrate why the provinces might not be doing enough. Under their representative structure, earning \$8,000 per year results in an improvement in take-home income of only \$2,300 in comparison with simply collecting Social Assistance. Earning \$16,000 per year results in an improvement of about \$3,400 in take-home income. It is clear that under such a system the incentives to join the labour force are very weak. (See table 2)

The study explains that:

Even economists who see no special social benefit from encouraging lone mothers into employment would, however, agree that individuals should at least be paid the full value of their current net marginal product in employment as a work incentive. In other words, if the lone mother can earn \$10,000 for her labour and the cost of her child care is \$5,000, the minimum appropriate work incentive for her to make the most efficient employment decision would be  $\$10,000 - \$5,000 = \$5,000$ .' (Cleveland and Hyatt p13)

Therefore, to avoid this situation government subsidies could be used to strengthen the work incentive. The study concludes that under a more progressive subsidy system, subsidies could in fact decrease government expenditure. However, this may not hold true if those who enter the labour force earn very small incomes. Nevertheless, the closer incomes come to \$20,000 annually, the more the government can benefit. (Cleveland and Hyatt p24) This is entirely possible especially considering that once the labour market is entered, incomes tend to rise with experience. There is also evidence from the U.S. that child care subsidies will reduce dependence

on welfare. A study by Rachel Connelly suggests that ‘moving to fully subsidized child care for unmarried mothers would reduce [welfare] reciprocity from the predicted level of 20 percent to 11 percent.’ (Connelly p111)

Again, in explaining the benefits of subsidies, the evidence about child care’s benefits to children has been disregarded. Clearly seen in the previous section however, quality child care does have benefits for children. We have also seen that low income may result in a choice of child care that is less than optimal in terms of developmental benefits. Therefore subsidies to low income families can help parents move into the labour force as well as ensure that the developmental potential of children is not jeopardized by their socio-economic status. ‘These twin concerns provide the rationale for some amendments to current child care subsidy programs in Canada's provinces and territories.’ (Cleveland and Hyatt p9)

Although providing child care subsidies to low income markets can improve efficiency in both the child care and labour markets, it is not the optimal system. Subsidies to low income families are what is known as a ‘targeted program.’ This means that the government supplements the incomes of only a certain proportion of the population in the hopes of achieving a more equitable system while simultaneously attempting to avoid excess costs. However, quality child care offers benefits to all children. By only providing subsidies to low income families, the government fails to account for the public good externality in the child care market. Even though lower income parents may be more inclined to use quality child care, higher income families may not purchase the most efficient amount of child care. By making child care subsidies a ‘universal’ program rather than a targeted one, market imperfections in both the labour and child care markets are less likely to produce inefficiency.

A further problem with targeted subsidies is that they are injected into the market on the demand side. This means that parents receive the funding to spend on child care as opposed to child care providers receiving funding. A demand side subsidy can be beneficial by drawing kids into quality child care and drawing low income parents into the labour market. However, it fails to correct another type of market failure which I have not yet discussed. This additional market failure occurs in the child care market. In comparison to the free market model which allocates funds efficiently, consumers in the child care market do not have perfect information. Allocating money to child care consumers allows them a greater ability to choose among child care options but it does very little to ensure the overall quality of these options. Even if parents wish to purchase quality child care, and subsidies give them the means to do so, they may not be able to tell which child care centres can provide the quality they are looking for. In the following section, I will demonstrate why quality is important and why we should be concerned about any imperfect information which could prevent quality child care from being provided.

### **The Importance of Quality in Child Care**

Although targeted subsidies may not be the best policy option available to Canadian governments, we have seen that giving parents more money to spend on child care may increase labour force participation and benefit society. This argument has generally been the one used to encourage increased funding but has been largely unsuccessful in swaying public opinion. However, the argument seems to be shifting to show that society's greatest potential gains from child care are present in its benefits to kids and not in its benefits to their parents. I have been debating that child care can be extremely beneficial for children, but it is important to note that this argument is based on the assumption that the care received is of high developmental quality. Any market imperfections which diminished the overall level of quality available in the child care market could be quite harmful to society. We have seen that parents may not value the right type of quality or may not be able to afford it.

Unfortunately, there is the additional market failure of imperfect information in the child care market. This provides further evidence that a free market system will not result in the optimal level of quality child care purchased and used. Imperfect information may not only result in a deficit of quality child care being provided, but may actually lower the quality of the care that is supplied in the free market model.

Imperfect information exists in the child care market because parents presumably lack full information about the attributes of care and the effort of the provider. It is difficult for parents to monitor the producer for enough time to make an appropriate judgement. 'The provider can be interviewed and the facilities inspected, yet the consumer can never be perfectly informed about the care his or her child receives.' (Walker p67) Also in the case of child care, parents make consumption choices on the behalf of young children who have limited ability to judge and communicate about caregiver and environment quality to their parents. 'Furthermore, the impact of low quality [child care] may not become apparent for many years (assuming of course that the low quality reflects only neglect or lack of stimulation, rather than physical abuse.) In that case, there is market failure because parents will not make the correct decision about what kind of care to purchase.' (Cleveland and Krashinsky p14)

'The difficulty parents have in accurately judging quality is compounded by its effects on the quality of child care services that are produced.' (Cleveland and Krashinsky p37) 'Adverse selection' occurs when high quality providers are able to make more money outside the industry. If parents can't discern child care quality then their spending decisions will assume that all of the options are of low quality. Parents can inquire and demand documentation of caregiver education and training. However, things such as creativity, effort put into daily plans and keeping all kids involved could never be fully monitored. If parents can't tell who provides quality service then



they will maximize utility by going with the low price alternative. Only providers who cannot make more money in another field, and are less skilled, will provide child care. Therefore the market has selected ‘adversely’ low quality child care providers. When this adverse selection occurs, children and society miss out on the developmental gains afforded by high quality child care.

With adverse selection, the market quality care is not low because caregivers purposefully cheat consumers, but rather because the average ability of providers entering the industry is ‘too low.’ In contrast, ‘Moral hazard occurs when providers cheat in their provision of quality: they defraud consumers who cannot perfectly monitor them.’ (Walker p68) ‘Moral hazard’, also known as hidden action, is likely to result when providers try to maximize sales. ‘Knowing that parents are anxious to have higher quality care, but that quality is difficult to judge, many caregivers may masquerade as good quality even if they are not.’ (Cleveland and Krashinsky p37) If this is the case, then judging the quality of child, which was difficult already, could become a near impossibility. It can also make it even less feasible for high quality caregivers to survive, assuming higher quality costs more to provide. Parents may not have the ability to make correct decisions and the correct ‘type’ of child care may not be supplied. The lack of quality options in the market would not be cause for concern if quality were not a major determining factor for a child’s development and their ability to contribute to society. However, intuition and research prove that the importance of quality cannot be overstated.

As we saw earlier in the benefits to children section, a stimulating child care environment with a qualified child care provider can have a very positive impact on a child’s development. However, positive developmental outcomes are not automatic by-products of children receiving non-parental care. If child care is to be beneficial to children, then positive developmental outcomes must be defined as a central goal. The argument that child care should only be funded

to increase labour force participation suggests that society benefits if kids are placed in affordable, safe and healthy environments while their parents work. However, 'quality child care is that which goes beyond simply protecting the child's health and safety to also support and assist the child's physical, emotional, social, language, and cognitive development.' (Doherty 1996 ch6) This type of care ensures that children have regular physical activity, social stimulation through repeated contact with peers and caregivers and are provided with a variation of supervised creative activities. (Doherty 1996 ch6) Methods have been devised to measure quality in child care settings and research shows that 'high' quality has long-lasting positive effect on children. On the other hand, 'low' quality care does not provide developmental benefits and may therefore be detrimental.

There are generally considered to be two classifications of quality in child care. These are 'structural' quality and 'process' quality. Structural quality involves the attributes which are most likely to be perceived by parents. Examples of structural characteristics which can easily be measured are child:adult ratio, group class size, caregiver formal education, and caregiver specialized training related to children. (Vandell and Wolfe) Health and safety provisions are also components of structural quality. These 'refer to both health-promoting practices, such as hand-washing, and safety in the classroom and on playgrounds.' (Vandell and Wolfe) Variables of structural quality are easily measured because standards can be established and compliance can be directly observed. (Doherty 1996 ch6)

A recently published study by Deborah Vandell and Barbara Wolfe reviewed some studies examining the effects of quality on children's development. They found that each aspect of structural quality had an isolated impact on children and discussed reasons why this might be the case. For example, infants who attend[ed] centres with smaller child:adult ratios [were] found to have better receptive and expressive language skills than children who attend[ed] centres with

larger child:adult ratios (Burchinal et al., 1996; Vernon-Feagans et. al 1997).’ This is not surprising because ‘toddlers are more likely to talk with their caregivers and to engage in complex play when classrooms have smaller child:adult ratios (Howes and Rubenstein, 1985).’ (Vandell and Wolfe) A study by Carollee Howes found that ‘preschoolers’ receptive language skills [were] higher when caregivers [had] at least an Associate of Arts degree in a child-related field.’ This relation might occur because ‘children are more likely to engage in language activities, complex play with objects, and creative activities in their classrooms when teachers have bachelor degrees in child-related fields (Howes, 1997).’ (Vandell and Wolfe) Perhaps the most convincing evidence that child care with high structural quality can be beneficial for children is a study conducted by Howes in 1988. The study definitively found that ‘structurally high-quality early child care positively predicted school adjustment for both boys and girls.’ (Howes 1988 p56)

Luckily, structural quality attributes are easily measured. Parents have the ability to distinguish high structural quality child care and if they can afford it, there is no reason to fear that imperfect information will result in incorrect decisions being made. However, this is probably not the case with process quality attributes. Process quality refers to the actual experiences that occur in child care settings, including children’s interactions with caregivers and peers and their participation in activities. Sometimes process measures are global scores that combine experiences across several areas that include health and safety provisions, interactions with caregivers, and age-appropriate materials. Other process measures target specific activities or experiences, such as language stimulation by caregivers.

One well-known process measure is the Early Care Environment Rating Scale (ECERS, Harms and Clifford, 1980). The ECERS is composed of 37 items that evaluate seven aspects of center-based care for children ages two and a half to five years. The evaluated areas are personal

care routines, furnishings, language reasoning experiences, motor activities, creative activities, social development, and staff needs. (Vandell and Wolfe) Actual observation of the child care environment is required to obtain an ECERS score. Studies trying to establish the effects of process quality in child care have found that providers who score well on the ECERS do indeed 'foster competent performance in the child care setting.' They also provide evidence that high process quality 'is related to children's subsequent competencies.' (Vandell and Wolfe) For example, The Bermuda Study (Phillips, McCartney, and Scarr, 1987) found higher ECERS scores to predict both caregiver and parent reports of children's considerateness and sociability, and caregiver reports of children's higher intelligence, task orientation and lower anxiety. Poor ECERS scores are associated with heightened behaviour problems (Hausfather et. al 1997; Peisner-Feinberg and Burchinal, 1997). (Vandell and Wolfe) The findings of these studies suggest that process quality in child care is crucial because it affects children's intellectual, social and emotional development.

Perhaps the most relevant investigation of the effects of quality in child care is *The Children of the Cost, Quality, and Outcomes Study go to School* published in 1999 by the Frank Porter Graham Child Development Center. This study is significant because it is among the most recent published; it is based on North American child care using data from four American states; and most importantly, it provides a longitudinal analysis component. Four methods were used to obtain data about quality and its effects. These were: (1) classroom observations using ECERS (2) individual child assessments using competency tests (3) teacher ratings of children and (4) parent reports of child and family characteristics to control for external variables. Children in varying levels of quality care were tracked through their child care years and their development was assessed in kindergarten and again in grade two. The *Cost, Quality and Outcomes study* found that 'child care quality was related to basic cognitive skills (language and math) and children's behavioural skills in the classroom (thinking/attention skills, sociability, problem

behaviours, and peer relations), both of which are important factors in children's ability to take advantage of the opportunities available in school.' (Peisner-Feinberg et. al - executive summary) These effects were long term and were not lost upon entry into the school system. Competency tests taken in grade two showed that, while controlling for child and family characteristics, children who had attended child care with a high quality rating were outperforming those who had attended lower quality care.

All of these studies indicate that high quality in child care, from both the structural and process points of view, has a substantial positive impact on children's developmental outcomes. Research also shows that child care that ranks as 'poor' may be detrimental to children since children in poor quality care showed less intellectual and social development than children who had only received parental care. In Gillian Doherty's paper *The Great Child Care Debate*, only one of the twenty one studies reviewed found negative effects from preschool non-parental child care (Vandell & Corasaniti, 1990). 'Vandell and Corasaniti (1990) hypothesize that [the anomalous findings] reflect significant differences in the quality of the child care received by the children.' (Doherty 1996 ch5) The researchers speculated that these findings were probably linked to the lack of licensing requirements in Texas where the study was conducted. Texas permitted untrained staff and more children per staff member than in any other area where this type of data was collected. (Doherty 1996 ch5) Evidently, child care of poor structural quality probably does not provide children with the opportunity to develop to their full potential and may in fact hinder their development.

Clearly then, the provision of both structural and process quality attributes are fundamental necessities for giving kids the greatest opportunity to benefit from non-parental care. As was previously discussed, society benefits when all children are afforded the opportunity to realize their potential. 'Therefore, quality in child care matters very much - for children, their

parents, our communities, and, perhaps most importantly, for our society as a whole.’ (CRRU 1996) Unfortunately, recent reports show that ‘the majority of the centres in Canada are providing care that is of minimal to mediocre quality.’ (Goelman et. al Vol.2 p.iv) The study entitled *You Bet I care! Volume 2* published by the University of Guelph in 2000 documents the findings of ‘the largest, most systematic and most multi-jurisdictional study ever conducted in Canada to explore [child care] centre quality.’ (Goelman et. al Vol.2 p.v) Centres were given scores based on the Caregiver Interaction Scale (CIS), the Infant/Toddler Environment Rating Scale (ITERS) and ECERS. The scores obtained suggested that physically safe and caring environments were the norm but that ‘fewer than half of the preschool rooms (44.3%) and slightly more than a quarter of the infant/toddler rooms (28.7%), [were] also providing activities and materials that support and encourage children’s development.’ The lack of learning opportunities currently provided ‘represents a major lost opportunity to capitalize on the potential of child care to support children’s development.’ (Goelman et. al Vol. 2 p.vi) Volume three of the report studied family child care and again found that ‘the overall quality of the home as a child care setting, is cause for concern.’ (Goelman et. al Vol. 3 p.iv)

These findings are quite alarming. We have seen how important the quality of child care is in determining developmental outcomes. We have also seen that market failure may be creating a situation where not enough quality child care is being purchased. Structural quality attributes are likely to be correctly perceived by parents, but parents may choose to pay for quality in other areas while foregoing structural quality. If the benefits to children of quality structural child care bring additional benefits to society, and parents are unwilling or unable to pay for this type of quality, then there is market failure due to the public good externality.

As with structural quality, parents may be unwilling or unable to pay for process quality and the externality market failure exists. However, even if parents are willing and able to pay for

process quality, they may not be able to tell which child care options provide the high quality they desire. The *Cost, Quality and Outcomes* study found that parents' estimates of the quality of child care received by their children varied considerably compared to the rankings given by trained observers for the same quality features in the same classroom. Parents' inability to judge quality will result in fewer parents willing to pay a higher price for advertised or estimated quality.

'Good quality caregivers will get driven out of the market, leaving an 'adverse selection' of only lower quality family care available.' (Cleveland and Krashinsky p37) Moral hazard also results in a lack of high quality care supplied because providers may know that parents can't properly observe quality levels. Caregivers may falsely publicize quality that they don't actually furnish. If these caregivers can 'fool' parents into paying for quality that they don't actually supply, then child care that actually does pay for real quality features is less likely to succeed and is more likely to be driven out of the market.

Therefore, incomplete information can very possibly create further market imperfections in child care. Many parents are willing and able to pay for quality. However, they are less likely to pay quality premiums for care that is of unknown quality. If parents could accurately judge quality, they would be willing to pay quality premiums and this would pull quality providers into the market. Therefore by avoiding imperfect information, additional transactions which would benefit both demanders and suppliers could occur. With the free market model, the optimum quantity traded is not achieved. As with the public good externality and the labour market imperfections, additional funding would help to overcome imperfect information. This would help the market to move to an optimal level of quality child care provided and consumed. The question then shifts from 'should we be funding more child care?' to 'what form should this additional funding take?'

### **Funding options: Why grants to child care providers is the best policy option**

It is now useful to recap all the market imperfections I have identified. Those specific to the child care market are: the public good externality of high quality child care, the unequal ability of parents to buy high quality child care, and the imperfect information (adverse selection and moral hazard) that results from the difficulty of judging the quality of child care. In the labour market, there is potential market failure in the taxation of earnings and the tax back rates of social assistance. These market imperfections associated with child care may prevent the free market from achieving the most efficient level of output for society. However, as economist James Walker notes, 'in identifying a market imperfection, one identifies a potential target of government intervention, ... not a mandate for it.' (Walker p64) To show that government should increase funding it must be shown that this increased funding will result in a better situation for society. In this section, I will discuss several funding options and the consequences they are likely to have with respect to eliminating as much market imperfection as possible. In addition to the benefits that various programs may have, costs must, of course, be considered as well.

Currently, child care funding in Canada consists of tax deductibility, provincial subsidies to low income parents and operating grants to certain child care providers. Child care advocates argue that these programs are not nearly enough to overcome the market failure which currently exists. (Friendly 1997 p4) Tax deductibility is a good policy but, as Cleveland and Hyatt point out, it is an issue of tax fairness with respect to labour market decisions. Tax deductibility cannot be relied on to provide the correct amount of high quality child care. (Cleveland and Hyatt 1997 p2) In addition, some critics suggest that tax deductibility is sexist because women still face wage discrimination, and deductions from low incomes will not provide a lot of extra money to spend on child care. (Rose p31) Tax deductibility could therefore be ineffective if it is intended to bring low income parents into the labour force and to provide parents with more money to purchase child care.



The method of supplying parents whose income falls below a certain level with a child care voucher is a targeted program. Certain criteria must be met to qualify for the program, as opposed to a universal program where all citizens have access. This appears to be a good system to bring low income parents into the labour force, ensure that all parents have a chance to use child care if they choose and to contribute to an equitable system. However, as we saw earlier (McCain and Mustard), quality child care is likely to be beneficial to all children, regardless of economic status. A targeted subsidy fails to take into account the public good externality that exists with middle and high income parents. Even parents who do not qualify for a subsidy still make child care choices based on price and if they don't take the public good of child care into account, they will undervalue child care.

For this reason, even a universal subsidy program might not be the policy with the most potential benefit. As long as funding is given directly to parents, there is no guarantee that they will put the money towards developmental outcomes for their children. 'Consumer subsidies assume that parents will make the best choice of care for their children,' but this may not be the safest assumption to make. (Cleveland and Hyatt 1997 p8) Also, if all families were given an equal subsidy, the value of the subsidy would likely become the 'floor price.' Only parents who could afford to spend more resources on child care would get high quality child care. Low-income parents would be forced to choose low quality care as long as there was no intervention on the supply side of the market.

Therefore, a universal subsidy system would not be an equitable system and society would miss out on the developmental benefits that kids could receive if they had access to high quality care. If subsidies were large enough, they could help to negate the effects of imperfect information because parents could afford to buy the services of a quality control agency.

However, if the subsidy does become the floor price, then the size of the subsidy doesn't matter. The more important point in the discussion of subsidies is that parents still make child care choices while children consume the product. Even if this price floor could somehow be avoided, and parents could afford to pay for quality to be monitored, parents may not place enough importance on the right kind of quality.

The only funding option which is likely to overcome the effects of all the major market imperfections associated with child care is grants to child care providers. These grants would require providers to meet certain criteria and would be wide ranging as to provide universal accessibility. Only quality child care providers would be given grants and so low quality providers who did not qualify would face higher operating costs than funded centres and would be driven out of the market. This system of regulation would be effective in combating imperfect information because only centres that continually met quality standards would continue to be funded.

Such a system would also reduce the negative effects of the public good externality. All parents would be able to afford child care. Also, even if they valued quality measures other than developmental quality, their children would be guaranteed the receipt of developmental quality. The effects of labour market imperfections would also be mitigated as reduced child care costs would draw parents into the labour force, allowing them to pay taxes. Low income parents who entered the labour force would be less likely to collect social assistance, creating a huge savings for government. Finally, substantial operating grants would create equity in child care because all children would have access to quality child care regardless of the economic status of their parents.

Again, the argument for funding of child care through grants to child care providers is the same used for the public education system. If early years education is as important as school

education (a hypothesis backed by research) then the argument for similar funding for both systems makes sense.

The argument that substantial supply side funding is likely to provide the greatest benefits of any funding option is easy to make and unlikely to meet with much opposition. However, this system would be the most costly and costs need to be accounted for. To argue that this is the system that should be implemented, it needs to be shown that the costs are justified.

Generally, for a responsible society to justify spending on a social program, the benefits to society of the program would have to outweigh the costs. In addition, the initial costs could not be so large as to cripple national incomes. The study entitled *The Benefits and Costs of Good Child Care* by Canadian economists Gordon Cleveland and Michael Krashinsky shows that the universal provision of quality developmental child care in Canada would likely meet both of these criteria. The study uses Canadian data to estimate the total costs and benefits to society of a new comprehensive child care funding program. Calculations show that the benefits would outweigh the costs two-to-one and that the cost of the program would be a very small percentage of GDP. Also, since other funding options may not overcome market imperfections for reasons I have discussed above, the *Benefits and Costs* study suggests that grants to child care providers is probably the only funding method that would be as successful.

Cleveland and Krashinsky presume that if such a system were implemented, families where both parents were employed would use full-day, full-time child care. This care would cost \$8,500 per year. Families who kept one parent out of the labour force would use part-week nursery school at a cost of \$3,000 per year. Similarly, if parents worked part-time, the cost of caring for their kids would be \$4,500 'that is slightly over half the cost of full-day, full-week care.' This would also be the cost for five year olds who attended part day kindergarten.

(Cleveland and Krashinsky p56) The study combines these estimated costs with a projection of the number of Canada's 1.6 million children between the ages of two and five who would use each of these different types of care. It is assumed that all children would use some form of care i.e. there would be one hundred percent take up of the program.

By combining these estimates, Cleveland and Krashinsky determine that the total initial gross cost of the program would be \$7.9 billion per year. (See table 3) This is a gross cost because it does not include the money currently spent on child care. Also, even if government ensured quality child care for all children, there could still be user fees for parents based on ability to pay. If Canadian governments currently spend \$1 billion on child care and, on average, parents pay twenty percent of the costs of child care, the net cost of the proposed program would be \$5.3 billion 'or less than one percent of Canada's annual GDP.' (Cleveland and Krashinsky p58)

The *Benefits and Costs* study also attempts to place a dollar value on the benefits of a universal government funded child care program. I have shown that these benefits can come through benefits to children and to parents. These benefits are complimentary because the benefits to parents of increased labour force attachment are beneficial to their children as well. (Cleveland and Krashinsky p67) However, to better explain the composition of the total societal benefits of child care, Cleveland and Krashinsky present child and parental benefits separately.

The benefits to children of high quality child care 'come in their greater social, language, cognitive and other forms of development, which lead, among other things, to improved school performance and decreased likelihood of dropping out of school.' (Cleveland and Krashinsky p68) The exact value of these developmental gains would be very hard to quantify but Cleveland and Krashinsky estimate the benefits to children of quality care as the value that affluent parents

place on it. For example, if quality developmental care costs \$2,400 more than informal unregulated care then the benefits to children of this care are assumed to be ‘the \$2,400 cost plus a 50 percent allowance for consumer surplus, or \$3,600.’ (Cleveland and Krashinsky p84)

The study also notes that estimating the value of a product by the value that affluent consumers place on it would not be appropriate for most commodities. Although some people may be willing to spend money on luxurious items, the value of these luxurious items would be much lower for most consumers. However, ‘what makes child care different is that the decision about quality care is not a matter of taste or personal consumption by the parent, but rather an investment in the future productivity and well-being of the child.’ (Cleveland and Krashinsky p62) We must assume that each child would place the same value on the opportunity to maximize their potential capabilities. By using such estimates and also predicting the number of children who would move into different forms of care under the new program, the study obtains a value for the total child development benefits. (See table 4)

Funding quality child care would also have benefits for parents who would use the new program. Reduced child care costs allow parents to increase their labour force participation. This increase in labour force attachment would provide increased current incomes, career-development opportunities and increased financial independence. (Cleveland and Krashinsky p69) *Benefits and Costs* assumes that the average gross wage of a new full-time worker will be \$20,000 per year. The total net benefit of an extra year’s full time employment would be \$40,000 because increased job skills lead to increased future incomes and decreased use of social assistance would save public money. Again, by combining and adjusting this figure with the projected number of parents changing employment status under the new program, a figure is achieved for the total parental benefits. (See table 5)

Adding the parental and child benefits gives a figure of \$10.6 billion, or twice the costs. (See table 6) Cleveland and Krashinsky warn that 'the evidence on the magnitude of the long-term benefits of child care are suggestive rather than certain.' (Cleveland and Krashinsky p55) However, in many instances their study uses very conservative estimates, and as of yet, no research has been conducted subsequent to the study's publication that disputes its findings. This study is therefore quite significant. Historically, there has been an argument that children are affected negatively if not cared for by their mothers. Child care research has however clearly shown that such an argument is unrealistic. The ongoing reluctance of Canadian governments (federal and provincial) to spend more money on child care is due to the fear that the costs of the program would not be justified. However, since the benefits of a government funded universal child care program probably outweigh the costs, these fears are not substantiated. The likelihood that the amount of money required to provide every Canadian child with access to quality child care would represent a minuscule percentage of GDP makes the argument for funding even stronger.

### **The Time is Now**

Canada's treatment of child care seems quite hypocritical considering its stand on children's rights at the United Nations. Canada was one of the major proponents of the UN Convention on the rights of the child. 'The Convention contains 54 articles concerning the treatment of children. It was ratified in 1989 by every government in the world (except the USA and Sudan) and each government must make regular reports on its progress.' The preamble of the Convention states that children everywhere have the right to live in "an atmosphere of happiness, love and understanding." "Those responsible for children in an official capacity must ensure that "the best interests of the child shall be a primary consideration"' (UNCRC in CRRU Oct. 2000)

Two articles of the Convention are particularly relevant to Canada's inadequate funding of child care. Article 3 declares that 'for all actions concerning children, whether undertaken by public or private social welfare institutions, courts of law, administrative authorities or legislative bodies, the best interests of the child shall be a primary consideration.' Also, 'State Parties shall ensure that the institutions, services and facilities responsible for the care or protection of children shall conform with the standards established by competent authorities, particularly in the areas of safety, healthy, in the number and suitability of their staff, as well as competent supervision.'

(UNCRC) Article 18 states that 'for the purpose of guaranteeing and promoting the rights set forth in the present Convention, State Parties shall render appropriate assistance to parents and legal guardians in the performance of their child-rearing responsibilities and shall ensure the development of institutions, facilities and services for the care of children.' (UNCRC)

Canada has accepted a legal responsibility to uphold the commitments to children set forth in these articles. However, the current funding system blatantly violates the intended values specified. Since quality child care is so beneficial to children, Canada's failure to provide the opportunity for all children to attend shows that 'the best interests of the child' are not a primary consideration. Also, there is no guarantee that children in Canadian child care are receiving 'competent supervision.' Finally, Canada does not ensure that single parents have access to affordable quality care and hence, does not 'render appropriate assistance to parents in the performance of their child-rearing responsibilities.' Although the United Nation cannot punish countries for not adhering the Convention on the Rights of the Child, Canada should take their commitment to children seriously. 'As a country, we have "signed on the dotted line" with respect to the rights of these children to better than poor quality child care. We must now take the country at its word and expect better.' (Griffin)

Now is the time for Canada to start to fulfil their responsibility to children by implementing new funding and regulation of quality child care. As Canadian child care advocates Jane Beach and Jane Bertrand state:

A convergence of circumstances bodes well for a major social policy initiative to launch an early childhood development system in Canada. As noted earlier, there is a growing consensus about two things: first, the importance of the early period of human development, and, second, the need to realign and expand early childhood development programs to support young children and their families.

I have presented examples of the ever-growing 'body of research [that] provides substantial evidence that [quality child care] enhances children's growth and development along multiple dimensions - physical, emotional, social, linguistic and intellectual.' (Battle & Torjman p2) I have also shown that if the provision of child care is determined solely by the free market, many children are unlikely to experience this growth and development. When kids don't get the opportunity to maximize their potential, they are less able to contribute to society and everyone suffers as a result. Canada's recent budget surpluses should be taken advantage of and put towards a new child care program. Shrinking child populations in Canada also ensure that a new program would be relatively inexpensive to implement. We have seen speculative evidence that the benefits of such a program would outweigh the costs by a ration of two-to-one, making it economically justifiable. It is time that Canada pays attention to the experts and evidence and adopts a regulated program of grants to child care providers that makes quality child care affordable and accessible to all Canadian children. The Childcare Resource and Research unit's website presents the situation best the book *Boom, Bust and Echo*:

Given the importance of early childhood education and nutrition to the intellectual and physical development of all human beings, a national effort to provide high quality daycare for every child who needs it would be one of the wisest investments Canada could make in its future.... (Foot and Stoffman p147)



**Tables**

**Table One: The Possible Effect of Inadequate Language Skills at School Entry**

Possible Outcome for the Child	Possible Outcome for Society
<p>Difficulty Learning to Read</p> <p style="text-align: center;">↓</p> <p>Frustration, perception of self as unable to do academic tasks, probability of being turned off school and attempting to learn</p> <p style="text-align: center;">↓</p> <p>Poor academic achievement, perhaps to the extent of being functionally illiterate</p> <p style="text-align: center;">↓</p> <p>Difficulty obtaining and retaining employment, low standard of living</p>	<p>Difficulty understanding and communicating effectively with the teacher leading to an increased likelihood of classroom behaviour that is considered disruptive by teachers and peers</p> <p style="text-align: center;">↓</p> <p>Grade repetition, and/or repeated failure in various subjects</p> <p style="text-align: center;">↓</p> <p>Leaving school without a diploma and without adequate reading and mathematical skills</p> <p style="text-align: center;">↓</p> <p>Fewer skilled workers, undermining of society's economic base and fewer resources to meet increased income maintenance demands</p>

(Doherty 1997 p66)

**Table Two: Take-Home Income of Lone Parents Eligible for Social Assistance Under Alternative Child Care Subsidy Schemes**

Full-year gross Earnings (\$)	No Subsidy System (\$)	Current Subsidy System (\$)	Full Subsidy (\$)
0	13,361	13,361	13,361
6,000	11,609	15,304	16,609
8,000	12,318	15,664	17,328
10,000	12,914	15,597	17,914
12,000	13,500	16,250	18,500
14,000	13,873	16,358	18,955
16,000	14,460	16,708	19,484
18,000	15,032	16,950	19,932
20,000	16,515	17,571	20,478
22,000	18,017	18,423	21,980
24,000	19,496	19,496	23,459
26,000	20,970	20,970	24,933

(Cleveland and Hyatt p12)

**Table Three: Total Cost of Proposed Early Childhood Education Program by Age of Child and Labour Force Status of Mother**

Years	Employed Full-Time	Employed Part-Time	Unemployed	Not in labour force	Total
2-4	\$4,465m	\$1,280m	\$240m	\$930m	\$6,915m
5	\$810m	\$185m	\$0	\$0	\$995m
Total	\$5,275m	\$1,465m	\$240m	\$930m	\$7,910m

(Cleveland and Krashinsky p58)

**Table Four: Child Development Benefits of Proposed Program**

Moving from	Moving to	Millions of dollars	
		2-4 years	5 years
Mother only	Nursery School	\$799	0
Mother only	Part-time	\$173	0
Mother only	Full-time	\$108	0
Nursery School	Nursery School	\$302	0
Nursery School	Part-time	\$103	0
Nursery School	Full-time	\$63	0
Part-time Informal	Part-time	\$648	\$48
Part-time Informal	Full-time	\$324	\$24
Full-time Informal	Full-time	\$1,140	\$197
Full-time regulated		\$360	\$19
<b>Total</b>		<b>\$4,020</b>	<b>\$288</b>

(Cleveland and Krashinsky p68)

**Table Five: Projected Employment Benefits**

Moving From	Moving To	Benefits (Millions of Dollars)
Not in Labour Force or Unemployed	Same	\$0
Not in Labour Force	Part-time Employment	\$2080
Not in Labour Force	Full-time Employment	\$2600
Part-time Employment	Same	\$0
Part-time Employment	Full-time Employment	\$1560
Full-time Employment	Same	\$0
<b>TOTAL</b>		<b>\$6240</b>

(Cleveland and Krashinsky p70)

**Table Six: Annual Benefits and Costs of Child Care Program for Two To Five Year-Olds**

	Millions of Dollars
<b><i>Costs of Program</i></b>	
Gross cost of childcare for 2-5 year olds	7910
Subtract: 20% parental contribution (scaled to income)	1581
Subtract: current government expenditures on child care	<u>1000</u>
Net Cost of Program	5329
<b><i>Child Development Benefits</i></b>	
Benefits to children already in licensed child care	379
Benefits to children in informal child care	2381
Benefits to children in maternal child care	<u>1548</u>
Total child development benefits	4308
<b><i>Labour Force Benefits</i></b>	
Part-time employment	2080
Full-time employment	<u>4160</u>
Total labour force benefits	6240
Total child development and labour force benefits	10548
<b><i>Net Benefit of Child Care Program</i></b>	<b>5219</b>
<p>Note: We have not included as a benefit the value of new employment provided to child care workers. Similarly, we have not included as a benefit the value of additional taxes collected due to moving child care out of the underground economy. Including these would increase the ration of benefits to costs. Furthermore, cost (and benefit) estimates assume 100% take-up of the program.</p>	

(Cleveland and Krashinsky p72)

## **Bibliography**

- Andersson, Bengt-Erik. "Effects of Day-Care on Cognitive and Socioemotional Competence of Thirteen-Year-Old Swedish School Children." *Child Development* 63 (1992): 20-36
- Battle, Ken and Sherri Torjman. *Ottawa Should Help Build A National Early Childhood Development System*. Ottawa: The Caledon Institute of Social Policy, 2000.
- Beach, Jane and Jane Bertrand. "More than the Sum of the Parts: An early Childhood Development System for Canada." *Occasional Paper 12*. Toronto: Childcare Resource & Research Unit, Centre for Urban & Community Studies, University of Toronto, 2000.
- Childcare Resource & Research Unit. *Early childhood care and education in Canada: Provinces and territories 1998*. Toronto: Childcare Resource & Research Unit, Centre for Urban & Community Studies, University of Toronto, April 2000.
- . *The rights of young children*. Toronto: Childcare Resource & Research Unit, Centre for Urban & Community Studies, University of Toronto, 1999.
- . *What does research tell us about quality in child care?: Fact sheet*. Toronto: Childcare Resource & Research Unit, Centre for Urban & Community Studies, University of Toronto, 1996.
- Cleveland, Gordon, Morley Gunderson and Douglas Hyatt. "Child Care Cost and the Employment Decisions of Women: Canadian Evidence." *Canadian Journal of Economics* 29.1 (1996): 132-151.
- Cleveland, Gordon and Douglas Hyatt. "Subsidizing Child Care for Low-Income Families: A Good Bargain for Canadian Governments?" *Choices*. 4.2 (1998).
- Cleveland, Gordon G. and Douglas E. Hyatt. *Subsidies to Consumers or Subsidies to Providers: How Should Governments Provide Child Care Assistance. Working Paper R-97-7E*. Hull: Applied Research Branch Strategic Policy, Human Resources Development Canada, 1997.
- Cleveland, Gordon and Michael Krashinsky. *The Benefits and Costs of Good Child Care: The Economic Rationale for Public Investment in Young Children*. Toronto: Childcare Resource & Research Unit, Centre for Urban & Community Studies, University of Toronto, 1998.
- Connelly Rachel. "The Importance of Child Care Costs to Women's Decision Making." *The Economics of Good Child Care*. Ed. David Blau. New York: Russell Sage Foundation, 1991. 87-117.
- Doherty, Gillian. *Zero to Six: The Basis for School Readines. Working Paper R-97-8E*. Hull: Applied Research Branch Strategic Policy, Human Resources Development Canada, 1997.

- . *The great child care debate: The long-term effects of non-parental child care.* Toronto: Childcare Resource & Research Unit, Centre for Urban & Community Studies, University of Toronto, 1996.
- Doherty, Gillian, Ruth Rose, Martha Friendly, Donna S. Lero and Sharon Irwin. *Child care: Canada can't work without it.* Toronto: Childcare Resource & Research Unit, Centre for Urban & Community Studies, University of Toronto, 1995.
- Foot, D. and Stoffman, D. *Boom, Bust and Echo: How to Profit from the Coming Demographic Shift.* Toronto: MacFarlane, Walter and Ross, 1996.
- Friendly, Martha. "What is the Public Interest in Child Care?" *Policy Options.* 18.1 (1997): 3-6.
- Goelman, H., G. Doherty, D.S.Lero, J.Tougas and A.LaGrange. *You bet I care! Study 2 and 3 – Caring and Learning Environments: Quality in Child Care Centres and Regulated Family Child Care Across Canada.* Guelph: Centre for Families, Work and Well-Being, University of Guelph, 2000.
- Griffin, Sandra. "Children's right to child care: The United Nations convention on the rights of the child." *Interaction.* Spring 1996.
- Harms, T., and R. M. Clifford. *Early Childhood Environment Rating Scale.* New York: Teachers College Press, 1980.
- Howes, Carollee. "Relations between Early Child Care and Schooling." *Developmental Psychology* 24 (1988): 53-57.
- Howes Carollee and Clare E. Hamilton. "Children's Relationships with Child Care Teachers: Stability and Concordance with Parental Attachments." *Child Development* 63 (1992): 867-878.
- Kisker, Ellen and Rebecca Maynard. "Quality, Cost, and Parental Choice of Child Care." *The Economics of Good Child Care.* Ed. David Blau. New York: Russell Sage Foundation, 1991. 127-143.
- Mustard, Fraser and Margaret McCain. *Reversing the brain drain: The early years study.* Toronto: Children's Secretariat, Government of Ontario, 1999.
- National Council on Welfare Website. 12 Jan. 2001.  
<<http://www.ncwcnbes.net/htmldocument/reportpromise/firstpag.html>>
- Osborn, A.F. and J.E. Milbank. *The Effects of Early Education: A Report from the Child Health and Education Study.* New York: Clarendon, 1987.
- Peisner-Feinberg, E., M. Burchinal, R. Clifford, M. Culkin, C. Howes, S. Kagan, N. Yazejian, Pl Byler, J. Rustici and J. Zelazo. *The Children of the Cost, Quality and Outcomes Study go to School.* Chapel Hill: Frank Porter Graham Child Development Center, 1999.
- Phillips, D.A., K. McCartney and S. Scarr. "Child-Care Quality and Children's Social Development." *Developmental Psychology* 23 (1987): 537-544.

- Rose, Ruth. "For Direct Public Funding of Child Care" *Policy Options*. 18.1 (1997): 31-33.
- Statistics Canada Website. 12 Jan. 2001. < <http://www.statcan.ca/start.html>>
- Tougas, Jocelyne. "A Snapshot of Quebec's Current Educational Child Care Reform: A Short History" The Child Care Policy Forum Website: <http://childcarepolicy.org>
- United Nations. *Convention on the Rights of the Child*. UN Issuing Body: Secretariat Centre for Human Rights. 12 Jan. 2001. < <http://www.hri.ca/uninfo/treaties/26.shtml> >.
- Vandell, Deborah Lowe and Barbara Wolfe. *Child care quality: Does it matter and does it need to be improved?* United States Department of Health and Human Services. 12 Jan. 2001. <<http://aspe.hhs.gov/hsp/ccquality00/ccqual.htm>>
- Vandell, D.L., and M.A. Corasaniti. "Variations in early child care: Do they predict subsequent social, emotional, and cognitive differences?" *Early Childhood Research Quarterly* 5 (1990): 555-572.
- Vincent, Carole and Frances Woolley. "Taxing Canadian Families: What's Fair, What's Not." *Choices*. 6.5 (2000).
- Waite, L., A. Leibowitz and C. Witsberger. "What Parents Pay for: Child Care Characteristics, Quality and Cost." *Journal of Social Issues*. 47.2 (1991).
- Walker, James R. "Public Policy and the Supply of Child Care Services." *The Economics of Good Child Care*. Ed. David Blau. New York: Russell Sage Foundation, 1991. 51-77.