

Introduction



Foundations are stepping up for children

Honorable Margaret Norrie McCain

In 1997, Quebec 5-year-olds were enrolled for the first time in full-day kindergarten. For just \$5 a day, they could also attend before- and after- school programming. In fact, schools took on extended-day activities for children up to 12 years of age. In 2000, for the same \$5, parents could enroll their youngest offspring in “Early Childhood Centres.”

Getting crazy for the kids

For Camil Bouchard, it was watching his words come alive. In 1992, the professor from the University of Québec at Montréal had submitted his report to the government: *Un Québec fou de ses enfants* (A Quebec Crazy for its Children). The catchy title was a reminder of just how important it is for every child to have at least one adult who is crazy about her or him. Bouchard asked Quebecers to meet the needs of young children and youth with equity, generosity and compassion. The report’s stirring call to action galvanized children’s activists, became a blueprint for policy makers and ultimately changed the lives of Quebecers.

82% Quebec dads who take parental leave

12% Dads in the rest of Canada who take parental leave

50% Reduction in child poverty in Quebec since 1998

6% Canadian GDP to educate children 6–18-years-old¹

99.2% Canadian 5-year-olds attending kindergarten²

Academics from many fields have tracked the outcomes of Quebec’s children’s initiatives, and the results have been truly amazing. In just a decade, Quebec has gone from the bottom to the top on many important social indicators. From having Canada’s lowest female labour participation, it now has the highest.³ Where Quebec women were once less likely to attend post-secondary education than their counterparts in the rest of Canada, today they dominate.⁴ At the same time, student scores on standardized test have gone from below the Canadian average to above.

Despite working more, Quebec women are also having more babies,⁵ and Quebec dads are more involved in child rearing. Eighty-two percent take paid leave after the birth of their infants, compared to just 12 percent of fathers in the rest of the country.⁶ In addition, childhood programs that allow mothers to work have slashed Quebec’s child poverty rates by 50 percent.⁷

Finally, in an analysis that should catch the attention of policy makers everywhere, Montreal economist Pierre Fortin revealed that the tax revenues from mothers who are able to work because of low cost children’s programming pay for the entire cost of Quebec’s system.⁸

The Lucie and André Chagnon Foundation marked the anniversary of Professor Bouchard’s report this fall. The celebration dovetails naturally with the release of this third edition of the *Early Years Study 3: Making Decisions, Taking Action*. While almost 20 years apart, both documents make a compelling case for why policy makers should

focus attention and resources on young children and their families.

Changing the conversation

At the same time as Quebecers were launching their children’s revolution, Dr. Fraser Mustard and I released the first *Early Years Study* (1999). It became a conversation-changer for traditional stakeholders and sparked interest among new elements in the scientific, financial and health communities. In it we recommended integrating the existing jumble of children’s services into community-based early child development and parenting centres that would be open to every child. The vision led to projects such as *First Duty* in Toronto, *Schools Plus* in Saskatchewan and *Community Schools* in South Australia. These early demonstration sites gave policy makers a place to “touch and feel” the difference between conventional, siloed children’s service delivery and a comprehensive format. Parents got to experience an integrated program; politicians, practitioners and experts from far and wide came to see what the future could look like. This helped boost governments’ confidence, allowing them to commit to expansion.

These models were highlighted in *Early Years Study 2*, which focused on the policy framework necessary to sustain such initiatives. The report recommended that early childhood programs be grounded in public education. The work of these leaders who showed how to combine the governance, resources, facilities, staffing and pedagogical approaches of early learning, care and family supports continues to inspire innovation elsewhere. Indeed, it is informing demonstration sites supported by the Margaret and Wallace McCain Family Foundation, in partnership with the governments of New Brunswick, Prince Edward Island, Nova Scotia and a First Nations community in Ontario.

Alongside the development of these early learning laboratories, ground-breaking research revealed how the interplay between nurture and nature in earliest childhood sets a course for future learning, health and behaviour. New economic studies analyzed how preschool impacts on children, translating into increased economic growth and a significant return on public investment. The findings were

disseminated through reports, conferences, journal articles and public information campaigns, many of them supported by a group of foundations^a that have come together to make awareness of early human development a focus of their work.

Together we have a goal that is ambitious, promising and fundamentally progressive: to expand publicly funded preschool education for all 2- to 5-year-olds. It would be available, affordable, top-quality and voluntary. Parents would decide if and how often their children attend. We are building on recent success; the majority of 5-year-olds in Canada now attend full-day kindergarten, and some jurisdictions are expanding access for 4-year-olds. The cross-country analysis in chapter 5 shows that even 2- and 3-year-olds are more likely than before to attend some type of group programming.

Our proposal is also realistic. By broadening education's mandate to include younger children, we can bridge the gap between parental leave and formal schooling. By including the option of extended-day activities for families who request it, Canada can have its long-demanded early learning and care program. We make publicly funded education the starting point of our initiative because it enjoys the confidence of Canadians and already reaches out to all school-aged children. With less effort than starting a whole new social program from scratch, education can meet the needs of preschoolers as well. At the same time schools can become the centre of the community for families with supports and programs from pregnancy on.

The fight for high-quality, universal early education is part of a larger battle to broaden the scope of government responsibility to ensure the success of young children and their families. This includes better parental leave, income support and family-friendly work environments. Quality is the key word. The benefits from high-quality early education and

^a Atkinson Charitable Foundation; Fondation Lucie and André Chagnon; Lyle S. Hallman Foundation; Lawson Foundation; Margaret and Wallace McCain Family Foundation; J.W. McConnell Family Foundation; Muttart Foundation and Jimmy Pratt Foundation.

care have been firmly established, but poor-quality programs can be worse than nothing, retarding children's development, wasting taxpayers' money and inflicting long-term harm on efforts to expand preschool when they fail to deliver promised results.

The results promised are justified by an avalanche of evidence showing how a public commitment to improving children's development can have transformative effects. The corollary of failing to act is deleterious for the individual and for society. The developmental gap that emerges so soon after birth for so many children not only robs individual potential, it also creates an unsustainable burden for our education, health and mental health systems. It deprives the economy of productive capacity and society of engaged, contributing participants. Reversing this trend requires smart decisions about program and system design. It requires public investment in a system for early childhood, comparable to the public investment made for the education of children 6 to 18 years.

The resources can be found

The resources can be found. Although we are still cleaning up from the collapse of the world's financial markets, economists tell us that public spending is the best antidote. This science of early development provides a framework to look beyond public works and incentives for the Big Three auto companies, to another important trio—preparing our future workforce, supporting parents to work or upgrade their skills and strengthening democratic communities.

Our goal in producing this third edition of the *Early Years Study* is to bolster the network of scientists, educators and parents, and of policy makers, administrators and community activists, providing them with a heightened capacity to make decisions and take action. We hope to spark the best thinking on public policy innovation, service delivery design, family and community engagement and public accountability. We need the best messaging and the most effective means of delivering it. And we must identify and reach those who do not know about the science of early human development and need to.

In this area, foundations are making a contribution. Like Professor Bouchard's report, *With Our*

Best Future in Mind: Implementing Early Learning in Ontario was commissioned by a provincial government.⁹ Released in 2009, it was unique in focusing not on *why* early childhood development should be an economic and social priority, but rather on *how* to effectively couple new public investments with existing resources to maximize results for children, families and communities. It is the basis for the Ontario government's initiative to expand early education to a full day for all 4- and 5-year-olds.

The back story to the report and the Ontario government's culminating commitment is the decade-long journey of the Atkinson Charitable Foundation to turn scientific evidence into community action and ultimately public policy. It began with a simple but compelling assumption: it is only through public policy that permanent and sustainable changes for a better future can take place.

Turning science into action

Atkinson used the common funder's tool of grant making to support good ideas and efforts—but it went further. It helped found and nurture Toronto First Duty to document and champion good practice as a means to inform public policy. It invested in building solid research and policy responses as part of the effort to realize change. It convened neutral space for stakeholders to organize their thinking and to strategize. An Early Years Fund was established to ensure its partners could always count on the resources needed to stay ahead of the curve, such as newswire posts, meeting supports, polling and quick research pieces. These are all good examples of a funder rolling up its sleeves and getting involved to support its mission.

The Chagnon Foundation used similar tactics to help establish *Avenir d'enfants*, a joint initiative of the Foundation with the Quebec government. *Avenir d'enfants* is the next step in Quebec's family policy. It supports local networks throughout the province to consolidate resources to better provide early childhood activities and initiatives.

Knowing you can't manage for improvement if you don't measure to see what is getting better and what isn't, the Lawson Foundation committed to multi-year research and the development

of monitoring and assessment tools now used by researchers and practitioners to reveal the effectiveness of programs and policies on a number of scales.

The work of these foundations has fostered a remarkable convergence of stakeholder and public opinion in their respective jurisdictions in support of new approaches to early childhood and family service delivery.

Funders help in other ways. We have ideas, resources, connections, leadership and pretty good inroads with decision makers. We also have the distinct ability to play bridge-builder between the community and policy makers.

Just as good investors know the value of a diversified portfolio, foundations have done well by investing in a range of approaches to address access to preschool. These approaches are demonstrated by the Muttart Foundation's ongoing commitment to child care access and quality, the voice and space for social innovation in First Nations' communities supported by the J. W. McConnell Foundation, and expanding early leaders in child development taken up by the newly formed Pratt Foundation. In addition, regional foundations such as the Lyle S. Hallman Foundation are facilitating new studies, identifying and promoting new voices for early childhood and sponsoring symposiums and other information-sharing platforms.

Recent examples are the "Brainstorm" and "Saving Education" series that appeared in the *Toronto Star*. These innovative works by Atkinson-sponsored journalists call on policy makers and educators to adapt education practices to modern communities and the new knowledge about early brain development.

Foundations are not designed to replace what governments should be doing, nor are we about usurping the public dialogue. Rather, by adopting focused and supportive funding partnerships, we can work with stakeholders to inform democratic discourse, reminding policy makers of their time-sensitive task to help prepare our youngest citizens today for the Canada of tomorrow.

Mothers and others needed for healthy human development

J. Fraser Mustard

My professional life has not always been focused on early human development. After receiving my MD from the University of Toronto, I began a research career at the University of Cambridge, focusing on the role of blood platelets in atherosclerosis and cardiovascular disease. I pursued this work when I returned to the University of Toronto and continued at McMaster University, where I recruited many international scientists who helped to develop the university's problem-based program of medical education. It has since been adopted as a model around the world.^a

^a For more about Dr. Mustard's life, see *J. Fraser Mustard: Connections & Careers* (2010), by University of Toronto Professor Emerita Marian A. Packham, a long-time friend, research collaborator and colleague of Dr. Mustard.

Childhood makes us human

In 1982, my career path changed when I took on the challenge of establishing the Canadian Institute for Advanced Research (CIFAR), an “institute without walls” that brought together distinguished investigators from across Canada and around the world to work in interdisciplinary teams exploring significant scientific and social challenges. At CIFAR I began to focus on the relationships between early human development and the future health, learning and behaviour of populations. I have been fortunate to work with some of the best and brightest minds, and they have certainly shaped the course of my work.

Among my latest influencers is Sarah Blaffer Hrdy, a Professor Emerita of Anthropology at University of California–Davis. Her study of humanity brings together economics, history, cultural and linguistic investigations and human evolution. It is a perspective that tells us much about the dynamic dance of people and place that shapes the human experience.

Hrdy finds the key to our evolution in the unique length of human childhood. If the young were to survive in a world of scarce food, they needed to be cared for, not only by their mothers, but also by grandmothers, siblings, aunts and friends. Out of this complicated form of childrearing came the human capacity for engaging with and understanding one another.

*Mothers and Others*¹⁰ knits a compelling argument that ever since the Pleistocene, it has taken a village to raise children—and how that gave our ancient ancestors the first push on the path toward

10 million Children who die worldwide before their fifth birthday

750 million World population in 1750

6.9 billion World population in 2011¹¹

3 million Illiterate adults in Canada

68 Life expectancy in Canada in 1950¹²

80.4 Life expectancy in Canada in 2005¹³

becoming emotionally modern human beings. These early hunter-gatherer groups were in a general sense an early child development and parenting initiative, dominated by the female members of the society. As the population grew, these small social arrangements changed and the human species evolved different forms of social organization as it developed more complex societies.

With the introduction of agriculture 10,000 years ago, land ownership became very important for societies that coalesced around food production, resulting in the development of towns and cities. Children were a very important part of the manpower necessary to produce food. During this period, societies developed new tools, language and embryonic communication strategies.

Increased food production led to larger communities governed by an elite of wealthy individuals, priests and rulers. These pyramidal societies frequently grew to a size that could no longer be sustained by their existing socioeconomic structures and food supplies. Empire building to acquire food and goods was offset by the cost of maintaining standing armies to subjugate conquered peoples. The Sumer, Grecian and Roman states, and the civilizations of Latin America, all fell prey to this contradiction, as would the European colonists millennia later. This same paradox mires imperialist states in conflicts today.

A qualitative leap in human development occurred 700 years ago. The invention of the

printing press made possible the communication of ideas among large numbers of people. With books came the need for education and an expansion of literacy. In Western countries, the Industrial Revolution led to improvements over time in transportation, energy systems, potable water, housing and the social environments in which people lived.

During the 1970s, physician and demographic historian Thomas McKeown argued that the growth in population in the industrialized world from the late 1700s to the present was not due to life-saving advancements in medicine or public health, but instead to improvements in overall standards of living, especially diet, resulting from better economic conditions.¹⁴ His work resonates today due to the importance of the question that underlies it: Are public health ends better served by targeted interventions or by broad-based efforts to redistribute the social, political and economic resources that determine the health of populations?

Robert Fogel, a Nobel Laureate in Economics, University of Chicago, has attempted to get economists to better understand how the relationship between new knowledge, technologies and economic prosperity affects people. In his 1999 presidential address to the American Economic Association, he stated: “I begin with the inadequate attention to the accelerating rate of technological change, the implications of the accelerating change for the restructuring of the economy and its transforming effect on human beings.”

In his book, *The Fourth Great Awakening and the Future of Egalitarianism* (2002), Fogel described the changes from 1730 to today in relation to the socioeconomic characteristics of society.¹⁵ He described four periods of what he calls “awakening” from an American perspective. The first awakening, 1730 to 1800, showed marked attacks on British morality and political corruption, and a decline in the power of religion. These concepts fuelled the American Revolution with a strong belief in equality of opportunity that accepted the principle of inequality of income as natural.

The second awakening, 1800 to 1900, resulted in substantial economic growth driven by fossil fuels as an energy source, along with new technologies,

growth in manufacturing and increased urbanization. Although this revolution led to inequalities in the distribution of wealth, there was still a strong belief in equality of opportunity.

The third awakening, 1900 to 1960, was strongly influenced by electricity and cars changing the nature of work and spurring urbanization. Income inequality was still accepted, but the markedly increased gap between rich and poor gave rise to anti-capitalist ideologies, social unrest and the concept of welfare.

The fourth awakening, 1960 to today, has resulted in exponential growth in new technologies and knowledge, along with increased urbanization and population growth. The fourth period is also associated with two seemingly contradictory trends: an upsurge in religious fundamentalism and significant changes in the role and rights of women. The latter is an evolutionary output of the fourth awakening; the former, a reaction to it.

The number of women employed in the market economy has increased dramatically. Social changes, however, have trailed economic realities. The University of Cambridge in England and Harvard University in the U.S. allowed women to attend but did not grant them degrees until after the Second World War. The Cambridge University reports for 1948 and 1949 reveal that the male-dominated Senate wondered if women were really worthy of a degree! Now women have careers in previously male-dominated fields and outnumber men in most post-secondary disciplines, including medicine, law and sometimes engineering. The education of women is strongly linked to lower fertility rates and to the survival, health and educational attainment of their children.

For societies, women's changing role has significantly affected social structures, how families function and how children are raised. It challenges our concepts of a gender division of domestic and productive labour and appropriate roles for the state in supporting families with young children.

Hrdy, in reviewing the changes taking place in Western societies and the effects on mothers and children, was troubled by the percentage of children

showing poor development and disorganized attachment. Until recently, in historic terms, children without committed nurturing rarely lived to adulthood. Today, 10 million children still die each year before their fifth birthday, the majority of deaths occurring in low-income countries. In rich nations, children can survive poor nutrition, neglect and even abuse, leading to a proportion^b of the adult population with learning, behaviour and health difficulties.

Humans are a very recent species in the history of the planet. Following the last Ice Age, the population was probably fewer than 50,000. The Agricultural Revolution supported a population boost, so that by 250 years ago we reached 750 million. In the 20th century, human density increased from 2 billion to 6 billion. In this century, there will be 9 billion human beings on the planet. These numbers will change how we live and organize ourselves; influence socioeconomic initiatives and infrastructures; and test the limits of the environment and resource supplies. Western countries will not be immune to clashes over access to fresh water and food supplies.

Closing the gap between rich and poor

Yet humans have a distinct capability to innovate, create technologies and find solutions to complex problems. Our task today, indeed even our very survival as a species, is to close the gap between rich nations and poor and ensure that future generations have the capacity to create democratic, pluralistic and prosperous societies.

Science has gone a long way in explaining how experience-based brain development in the early years of life (conception to age 6) affects neurobiological pathways that influence the life's course. Hrdy's story makes it clear that equity in early human development requires others to support the mother and her children during early development.

Investing in expectant mothers and their young children is a powerful equalizer and a key tool for economic and social stability. States that invest in women as active members of the labour force show

^b 25–30% of the adult population in Anglo-American countries.

much better population performance in education, behaviour and health than countries that do not invest. The Scandinavian countries and Cuba invest in pregnant women and young children. They have put in place high-quality centre-based programs involving parents, that are accessible and affordable. For example, the high rate of adult literacy in Norway indicates the benefits of its widespread early childhood programming. By comparison, Canada, with its spotty family policies, has 3 million illiterate adults.

Brain plasticity allows us to consider later interventions to improve outcomes for children who have had a poor start. However, it is better for the child, and less costly for society, to provide a positive beginning, rather than having to resort to remedial action later on.

Findings from early intervention and population studies are compatible with what we know about developmental neurobiology and the importance of early experiences on reading and literacy later in life. Countries with developed preschool systems link their programs to education. Since early human development directly affects performance in the school system, this is a very sensible policy. Pregnancy and the first two to three years of life are critical periods in early human development. Parental leave policies that recognize the benefits of breastfeeding and parental attachment, and that allow new parents to ease back into the workplace, are also essential.

With socioeconomic changes, have modern societies lost the art of nurture to ensure equitable development for all young children? Our understanding of developmental neurobiology in the early years shows us how the development of the architecture and function of the brain in early life affects health, learning and behaviour until we die. Canada's tomorrow depends on our ability to leverage what we know into policies and practices that support families and benefit children today. Now, as never before, the knowledge needs to be harnessed to serve not just every individual in our society, but every society around the globe.

ENDNOTES

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- 14 McKeown, T. (1976a); McKeown, T. (1976b).
- 15 Fogel, R.W. (2002).