THE EDUCATIONAL OUTCOMES OF CHILDREN IN CARE IN MANITOBA



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The Manitoba Centre for Health Policy (MCHP) is located within the Department of Community Health Sciences, College of Medicine, Faculty of Health Sciences, University of Manitoba. The mission of MCHP is to provide accurate and timely information to healthcare decision–makers, analysts and providers, so they can offer services which are effective and efficient in maintaining and improving the health of Manitobans. Our researchers rely upon the unique Population Health Research Data Repository (Repository) to describe and explain patterns of care and profiles of illness and to explore other factors that influence health, including income, education, employment, and social status. This Repository is unique in terms of its comprehensiveness, degree of integration, and orientation around a de-identified population registry.

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We thank the University of Manitoba, Faculty of Health Sciences, College of Medicine, Health Research Ethics Board for their review of this project. MCHP complies with all legislative acts and regulations governing the protection and use of sensitive information. We implement strict policies and procedures to protect the privacy and security of de-identified data used to produce this report and we keep the provincial Health Information Privacy Committee informed of all work undertaken for Manitoba Health, Healthy Living & Seniors.





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EXECUTIVE SUMMARY

Objectives of this Report

This report presents descriptive and statistical analyses regarding children placed in the care of Manitoba Child and Family Services (CFS). Referred to as "children in care" in this report, these children have been removed from the care of their original families because of a situation where authorities have deemed their family unable or unfit to look after them properly. Children can come into care for a variety of reasons including abuse, neglect, illness, death of a parent, addiction issues or conflict in their family, disability, or emotional problems.

This report was conducted by the Manitoba Centre for Health Policy (MCHP) at the request of Manitoba Health, Healthy Living and Seniors and the Healthy Child Committee of Cabinet (HCCC). MCHP was asked to "identify factors that contribute to the educational success of children in care in Manitoba" and to make recommendations regarding what schools, school divisions, and the provincial Department of Education and Advanced Learning could do to contribute further to the educational success of children in care.

In order to fulfill this request, MCHP identified five main objectives for this report:

- 1. Describe the characteristics of children in care in Manitoba.
- 2. Describe the educational outcomes of children in care in Manitoba.
- 3. Identify factors that are associated with positive (and negative) educational outcomes for children in care in Manitoba.
- 4. Provide information on programs that improve educational outcomes for children in care.
- 5. Provide recommendations on how educational outcomes for children in care can be improved in Manitoba.

Objectives 1 to 3 were addressed using information in the Population Health Research Data Repository (the Repository), housed at MCHP. Because the data at MCHP do not include information about specific programs operating in classrooms, schools, or school divisions, to address objective 4 we searched the literature to find information on programs that have been successful at improving the educational outcomes for children in care.

Background on Children in Care

Compared to other countries, Canada has a very high rate of children in care. Among Canadian provinces and territories, Manitoba has among the highest rates of children in care—over 3% in 2011 (Brownell, 2013). The number of children in care in Manitoba increased substantially over the past decade; according to the Manitoba Family Services Annual Report, there were 10,293 Manitoba children in care on March 31, 2014 (Manitoba Family Services, 2014a). There is an over-representation of Indigenous children in care (First Nations, Metis, Inuit); they compose approximately 26% of the child population in Manitoba, yet they accounted for close to 90% of children in care on March 31, 2014 (Manitoba Family Services, 2014a). This over-representation reflects historical social and health inequities and injustices experienced by Indigenous communities.

The over-representation of Indigenous children in care has its roots in the historical disadvantages experienced by Indigenous peoples, including the negative effects of colonization and the inter-generational impact of the residential school system which separated children from their families and subjected many children to maltreatment. The long-term impact of these historical experiences are also at the root of many of the difficulties experienced by First Nations and Metis families today, including suicide, family violence, substance abuse, mental health issues, and parenting challenges (Ball, 2008; Blackstock, Trocmé, & Bennett, 2004; Sinha, Trocmé, Blackstock, MacLaurin, & Fallon, 2011; Tilbury & Thoburn, 2011; Wright, 2013); these are the very challenges that contribute to children going into care.

Methods Used in this Report

The data in the Repository at MCHP contain no names or addresses; a scrambled health number allows for personlevel, anonymous linkage across datasets and over time. Several datasets were linked together for analyses in this study, including the Child and Family Services Information System (CFSIS), Enrolment and Assessment data from Education and Advanced Learning, Early Development Instrument (EDI) data and Families First Screen from Healthy Child Manitoba, Income Assistance data from Jobs and the Economy, and health-services information on hospitalizations, physician visits, and medications prescribed.

In order to describe children in care in Manitoba (objective 1), our study population included all children from birth to 18 years who had spent at least one day in care in fiscal years 2009/10 through 2011/12.

In order to examine the educational outcomes of children in care in Manitoba (objective 2), we used as many years of assessment data from the Manitoba education datasets as were available for each outcome. Outcomes examined were EDI, grade repetition, grade 3 assessments in reading and in numeracy, grade 7 assessments in mathematics and in student engagement, grade 8 reading and writing assessment, number of credits earned in grade 9, grade 12 standards tests in language arts and mathematics, and high school completion. Outcomes were compared for children who were:

- 1. ever in care up to the time of the assessment ("ever in care");
- never in care up to the time of assessment, but whose families had ever, during the child's lifetime up to the time of the assessment, received protection or support services from Child and Family Services ("ever received CFS"); and
- 3. never in care and never received services from CFS up to time of assessment ("never in care/never received CFS").

In order to identify factors associated with positive (and negative) educational outcomes for children in care in Manitoba (objective 3), we focused on children who had ever been in care. We used regression modeling to identify which of the characteristics of children in care examined in the descriptive analyses were related to educational outcomes. It is important to bear in mind that despite having a number of datasets from multiple sources (health, education, family services) for analyses in this study, the data in the Repository do not include measures of a number of characteristics of children that may have an impact on educational outcomes, such as child resilience, presence of a mentor in the child's life, quality of the placement, and important measures of family functioning, for both biological and foster families.

Characteristics of Children in Care in Manitoba: Key Findings

- Age at first entry into care tends to be quite young, with almost one third (32.9%) of the children in care during our study period having their first entry into care before their first birthday; nearly half of these children were taken into care at birth.
- Close to half of all children in care in our study period had only one experience (episode) in care, 30.7% had two episodes, 12.4% had three episodes, and 10.3% of children had four or more episodes.
- Within a single episode of care, a child can have more than one placement (e.g., moving from one foster home to another). We found that 55.3% of episodes involved only one placement, 17.6% had two placements, and 27.1% had three or more placements.
- How long children stay in care is strongly related to age of entry into care: children who enter care at younger ages tend to stay longer. For children who enter care at less than one year of age, over one quarter (26%) stay at least 12 years in care. For children who enter care at age five or older, one quarter stay at least three years.

- A high proportion of Manitoba children in care are from an Indigenous group. According to CFSIS data, of the children in care during our study period, 62.3% were First Nations, 11.8% were Metis, and 0.3% were Inuit; 17.5% were non-Indigenous; and 8.1% were "not determined."
- At a population level, using Census data on the Indigenous and non-Indigenous populations of children in Manitoba, we were able to look at the percent of all children between the ages of 0 through 14 who were in care in 2006. For non-Indigenous children, less than 1% were in care at any point during 2006, compared to almost 9% of Indigenous children (12.1% of First Nations children, 3.3% of Metis children and 13.7% of Inuit children). When looking at the percent of children in 2006 who were *ever* in care up till their 15th birthday, we found that 1.7% of the non-Indigenous children were ever in care, compared to 16.6% of Manitoba Indigenous children (22.4% of First Nations, 6.4% of Metis, and 15.4% of Inuit children).
- Among children in care, Indigenous children are more likely than non-Indigenous children to have initially entered care during their first year of life (35.5% for First Nations, 29.3% for Metis, and 21.1% for non-Indigenous children), and to have been taken into care at birth (15.6% for First Nations, 15.3% for Metis, and 10.2% for non-Indigenous children).

Characteristics of Children in Care in Manitoba Compared to Children not in Care: Key Findings

For a number of measures, we compared children in care to children not in care but whose families received services from CFS, and also to children not receiving any form of child welfare services. Children in care were much more likely to:

- have mothers who were 17 years or younger at the birth of their first child (40.9%, compared to 31.5% and 6.8%, respectively);
- have mothers who reported using substances during pregnancy (13.2%, compared to 4.8% and 1.6%);
- have a developmental disability (11.0%, compared to 3.7% and 1.5%);
- have a mental disorder (32.0%, compared to 19.1% and 7.7%);
- be from a family receiving income assistance (69.0%, compared to 67.5% and 12.0%); and
- have been born small for gestational age (11.0%, compared to 8.8% and 7.6%).

Educational Outcomes for Children in Care: Key Findings

We looked at a number of measures of children's educational outcomes over a range of grades, from kindergarten through grade 12. We compared children who had ever been in care to children who had never been in care but whose families had received services from CFS, and to children who had never been in care nor received services from CFS. For all outcomes examined, the children who had never been in care nor received services from CFS, who in turn had better outcomes than the children who had never been in care. When we adjusted our analyses for things like socioeconomic status (SES), child age, and whether the child had a developmental disability, the differences between our three groups of children decreased, but were still substantial and statistically significant. This is not to say that being in care is causing the outcomes, because many of the factors that lead to a child going into care—e.g., neglect, abuse, and parental addictions—are associated with poorer educational outcomes for children even if they do not go into care. We do not have data on many of these factors, so could not adjust for them in our analyses.

Factors Associated with Educational Outcomes for Children in Care: Key Findings

We examined a number of potential factors that may be associated with both positive (and negative) educational outcomes. In this analysis we did not compare children in care to other groups of children not in care, but compared children in care who had positive outcomes to children in care who did not have these positive outcomes—for outcomes such as meeting expectations for their grade in mathematics, completing high school. Many factors that are known to contribute to success in school could not be measured with the data in the Repository (e.g., how much parents or guardians read to their children or support them with their school work), nor were we able to look at school-level factors, such as programs in schools supporting children with learning challenges. Of the factors we were able to examine from the Repository, the following were found to be related to educational outcomes for at least two of the eight outcomes we examined:

- There was little variation in outcomes across schools, suggesting consistent outcomes for children in care regardless of school attended.
- Students in care who were from higher SES backgrounds had more positive outcomes for grade 7 engagement, number of credits earned in grade 9, and high school completion.
- Students in care who attended schools in higher SES areas had more positive outcomes for number of credits earned in grade 9, and high school completion.
- The older the student in care relative to other students in the same grade, the more likely they were to do poorly on the EDI, grade 7 mathematics assessment, grade 7 engagement, grade 8 reading and writing, and number of credits earned in grade 9. This is most likely because the older students were those who had repeated a grade, an indication that they had learning difficulties.
- Students who were permanent wards (the guardianship rights of their parents have been terminated) had better outcomes for grade 3 numeracy, grade 7 mathematics, and number of credits earned in grade 9, compared to students who were temporary wards or under a voluntary placement agreement.
- Being placed in care with a relative—i.e., kinship care—was associated with positive outcomes for high school students (number of credits earned in grade 9 and high school completion).
- Entering care for reasons categorized as "conduct of the child" was associated with poorer outcomes for number of credits earned in grade 9 and for high school completion.
- Entering care at an older age (10 years or older, compared to less than 1 year old) was associated with poorer outcomes for grade 7 mathematics, number of credits in grade 9 and high school completion.
- Girls in care had better outcomes than boys in care for the EDI, grade 3 reading, grade 7 student engagement, grade 8 reading and writing, number of credits in grade 9, and high school completion.
- Being from a family receiving income assistance was associated with poorer outcomes for the EDI and high school completion.
- Having fewer episodes of care was associated with better outcomes for grade 8 reading and writing, number of credits earned in grade 9, and high school completion.
- Although data on attendance were only available for one outcome (the EDI), we found the lower the proportion of days absent, the more likely a child was "ready" for school learning.
- Having a developmental disability was associated with poorer outcomes for the children in care for all outcomes examined.
- Having a mental disorder was associated with poorer outcomes for the children in care for all outcomes examined.
- Among the four Indigenous groups (non-Indigenous, First Nations, Metis, and Inuit), non-Indigenous children tended to have better outcomes. The observed differences in educational outcomes likely reflect social inequities confronting Indigenous groups, including poverty, lack of adequate housing, lower funding for education and social services, cultural devaluation, racial discrimination, and the legacy of the residential school system.

Literature Review of Programs that Improve Educational Outcomes for Children in Care

There have been two recent literature reviews that focus on interventions aimed at improving the educational achievement of children in care (Forsman & Vinnerljung, 2012; Liabo, Gray, & Mulcahy, 2013). Both reviews found that the effectiveness of programs that aim to improve the educational outcomes of children in care is largely unknown. Of the programs evaluated, many showed promising results for improving the educational success of these children; however, both reviews caution readers that weaknesses in study designs limit the conclusions that can be made about the effectiveness of the interventions examined. A brief description of these reviews is provided in this report, along with other studies that describe promising programs.

Summary and Conclusions

The main goal of this report was to identify factors that are associated with success in school for children in care, so that recommendations could be made regarding what schools, school divisions, and Manitoba Education and Advanced Learning could do to contribute to the educational success of children in care. That said, it is important to remember that we do not have information on a number of key factors that are likely strong influences on children's educational outcomes (e.g., the kinds of programs already operating in schools, information on home environment).

Fewer absences from school, being in kinship care, higher SES, and having fewer episodes of care were identified as some of the factors associated with positive educational outcomes. However, the overwhelming story from this analysis is that children in care have fewer successes in school than children who have not been in care. Furthermore, our finding that a much lower percentage of children in care enter school ready to learn confirms that the disadvantage for these children begins before school entry.

Additional support in the classroom may improve outcomes; however, the research literature is lacking strong evidence for school-based programs aimed at improving outcomes for children in care. A question that remains unanswered is whether the educational outcomes for children in care can be significantly improved within the existing system. Many of the factors that result in children going in to care are the very factors that can impair their development and therefore their performance in school: poverty, poor housing, parental addictions, and family conflict and dysfunction. It appears that the solution to improving the educational outcomes of these children is through inter-sectoral approaches: social services and education working together with community organizations, and in some cases, the federal government, to alleviate the conditions that lead to children going into care in the first place. Given that the vast majority of children in care are Indigenous, partnerships with Indigenous communities are essential.

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CHAPTER 1

Objectives of this Report

This report was conducted by the Manitoba Centre for Health Policy (MCHP) on behalf of Manitoba Health, Healthy Living and Seniors, at the request of the Healthy Child Committee of Cabinet (HCCC). The HCCC asked MCHP to identify factors that contribute to the educational success of students in the care of Child and Family Services in Manitoba (e.g., children in foster care or other forms of "out-of-home" care). MCHP was also asked to make recommendations regarding what schools, school divisions, and Manitoba Education and Advanced Learning could do to contribute further to the educational success of children in care.

In order to fulfill this request, MCHP identified five main objectives for this report:

- 1. Describe the characteristics of children in care in Manitoba.
- 2. Describe the educational outcomes of children in care in Manitoba.
- 3. Identify factors that are associated with positive (and negative) educational outcomes for children in care in Manitoba.
- 4. Provide information on programs that improve educational outcomes for children in care.
- 5. Provide recommendations on how educational outcomes for children in care can be improved in Manitoba.

Objectives 1 to 3 were addressed using information in the Population Health Research Data Repository (the Repository) housed at MCHP. The Repository is a comprehensive collection of population-based data developed and maintained by MCHP on behalf of the province of Manitoba. Several datasets from the Repository were brought together for the analyses in this report which are described in Chapter 2. The two key datasets used for this report were the Child and Family Services Information System (CFSIS), which contains information about involvement with child welfare services, and the Education Enrolment and Assessment dataset, which provided the main outcomes for this report. Data about programs operating within classrooms, schools, or school divisions are not available in the enrolment and assessment data, so an evaluation of specific programs with respect to their success at improving outcomes for children in care was not possible using the data in the Repository. Thus, to address objective 4, we searched the literature to find information on programs that have been successful at improving the educational outcomes for children in care.

Structure of this Report

The remainder of this chapter provides background information on children in care and their educational outcomes. Chapter 2 describes the methods used in this report. Chapter 3 describes some of the key characteristics of children in care in Manitoba. Chapter 4 examines a number of educational outcomes for children in care in Manitoba. In Chapter 5, the results of statistical models used to identify factors associated with educational outcomes of children in care in Manitoba are described. Chapter 6 provides key findings from the literature on programs aimed at improving outcomes for children in care. Chapter 7 provides a summary of the report findings, and conclusions based on the findings.

Background on Children in Care

Compared to other countries, Canada has a high rate of children who are in the care of child welfare services ("children in care"). In 2001, the percentage of children in care under 18 years of age in Canada was 1.1%, compared to 0.07% in Germany (in 2004), 0.17% in Japan (in 2005), 0.55% in England (in 2005), 0.66% in the United States (in 2005), and 1.2% in France (in 2003) (Thoburn, 2007). Among Canadian provinces and territories, Manitoba has among the highest rates of children in care. In 2007, the rate of children in care in Manitoba was 2.4%.

The Northwest Territories had a higher rate (3.1%), whereas the rate for Yukon (2.5%) was similar to Manitoba's (Canadian Child Welfare Research Portal, 2011b). In Manitoba, on March 31, 2011, over 3% of children aged 0–17 years were in care (Brownell, 2013). Gilbert et al. (2012) reported that by the age of 7 years, 7.5% of Manitoba's children have been in care at some point in their lives. The number of children in care in Manitoba has increased substantially. Between 2002 and 2014, the number of children in care in Manitoba on March 31 increased from 5,495 to 10,293, or by over 87% (Manitoba Family Services, 2014a; Manitoba Family Services and Housing, 2002).

Child Protection in Canada

In Canada, the first child welfare organization began in Toronto, Ontario in 1891 (Swift, 2011). At this time, many homeless and neglected children were visible on the city streets due to the economic conditions. In 1893, the first child protection law in Canada was passed, which was soon after duplicated in many jurisdictions across the country (Swift, 2011). These laws and practices were modeled after the British doctrine of *parens patriae* (Latin for "parent of his or her country"), which grants the state the power to act as guardian to those who cannot care for themselves (Nolo, 2014; Swift, 2011). The doctrine of *parens patriae* provides judges the power to make decisions affecting a child's well-being, such as a change in custody, without parental consent (Nolo, 2014).

Today, each province and territory in Canada has its own child-welfare agency, which has the task of protecting children from harm. As a whole, these agencies are referred to as the Canadian child welfare system. This system is a set of services designed to safeguard children from abuse and neglect and encourage family stability by providing families with the tools to raise children successfully. The Canadian child welfare system also has the responsibility to investigate reports of child neglect and abuse and, if required, take action to protect children (Bounajm, Beckman, & Theriault, 2014; Canadian Child Welfare Research Portal, 2011a; Swift, 2011).

Currently, Canada does not have a national strategy for the provision of child protection services. As a result, legislation, policies, and standards can vary across the provinces, territories, and First Nations (Farris-Manning & Zandstra, 2003; Swift, 2011). In general, the child protection legislation of each jurisdiction in Canada focuses on the "best interests of the child," which directs the relevant authorities to intervene in the "least intrusive" way (Swift, 2011). All jurisdictions are fairly consistent in their definition of "child in need of protection" as any child experiencing physical, sexual, emotional, or psychological abuse or neglect, which may take the form of deprivation, failure to provide medical care, failure to protect, or abandonment (Swift, 2011).

Child Protection in Manitoba

In Manitoba, the Child Protection Branch of the Government of Manitoba manages and provides funding to all programs provided by Child and Family Services (Manitoba Family Services, 2014e). The most important provincial laws related to Child and Family Services are *The Child and Family Services Act, The Adoption Act*, and *The Child and Family Services Authorities Act* (Manitoba Family Services, 2014d). As expressed in *The Child and Family Services Act*, the well-being of children (in a broad sense) and the preservation and support of family units and communities such that they can provide for the well-being of children are two of the key guiding principles of services for children and families in Manitoba (Government of Manitoba, 2012). The Manitoba Child and Family Services Division works with other organizations to maintain the safety and protection of children and provide assistance to those affected by family violence and disruption (Manitoba Family Services, 2014b). Services provided to children, families, and communities can include counselling, education, emergency assistance, practical support, treatment, and temporary or permanent care for children (Manitoba Family Services, 2014c).

Over-Representation of Indigenous¹ Children in Care in Manitoba

Children of a particular ethnic group are considered to be over-represented in the child welfare system when there is a higher proportion of those children in the system than in the general population (Allan, Howard, & Kempe Center for the Prevention and Treatment of Child Abuse and Neglect, 2013). In Manitoba, Indigenous children

1 The term Indigenous as used in this report includes three groups: First Nations, Metis and Inuit. The Advisory Group for this project included representation from First Nations and Metis organizations.

comprise approximately 26% of the child population (Manitoba Aboriginal and Northern Affairs, 2012), yet they account for the vast majority of children in care. According to Manitoba Family Services, of all the children in care in Manitoba on March 31, 2014, 87% were Indigenous, up from 81% in 2002 (see Table 1.1)² (Manitoba Family Services, 2014a; Manitoba Family Services and Housing, 2002).

Veer	Indigenous		Non-Inc	Tatal		
rear	Count	Percent (%)	Count	Percent (%)	lotai	
2002	4,449	81.0	1,046	19.0	5,495	
2003	4,466	80.7	1,067	19.3	5,533	
2004	4,803	83.1	979	16.9	5,782	
2005	5,116	83.6	1,002	16.4	6,118	
2006	5,627	84.9	1,002	15.1	6,629	
2007	6,185	85.4	1,056	14.6	7,241	
2008	6,725	85.8	1,112	14.2	7,837	
2009	7,419	86.0	1,210	14.0	8,629	
2010	7,915	86.8	1,205	13.2	9,120	
2011	8,047	85.3	1,385	14.7	9,432	
2012	8,371	86.0	1,359	14.0	9,730	
2013	8,633	86.9	1,307	13.1	9,940	
2014	8,960	87.0	1,333	13.0	10,293	

Table 1.1: Count and Percentage of Children in Care in Manitoba on March 31, by Year and by Indigenous Group

Sources: Manitoba Family Services and Housing, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009; Manitoba Family Services and Consumer Affairs, 2010, 2011; Manitoba Family Services and Labour, 2012, 2013, Manitoba Family Services, 2014. Numbers include both Federal and Provincial responsibility.

Over-Representation of Minorities in Care—International Perspective

The over-representation of Indigenous children in care in Manitoba is similar to what is found with ethnic minorities in other countries. In the United States, data suggest that African American, American Indian, and Native Alaskan children are over-represented in the child welfare system, whereas white children are under-represented. Compared to white children, African American children are 1.6 times more likely to have a confirmed case of maltreatment and 2.0 times more likely to be placed in foster care. In addition, American Indian and Native Alaskan children are 2.5 times more likely to have a confirmed case of maltreatment and 2.9 times more likely to be placed in foster care (Allan et al., 2013).

In Australia, the Indigenous population is also over-represented in the child welfare system. In 2006, the rate per 1,000 children in out-of-home care was 29.8 for Indigenous children compared to 4.1 for all other children. As such, the rate of Indigenous children in care was 7.3 times the rate for other children (Australian Institute of Health and Welfare (AIHW), 2007).

² According to Canada Census data, in 2006, 25.9% of Manitoba children 0-14 years were Indigenous (First Nations – 16.6%; Metis – 8.8%; Inuit – 0.08%); in 2011 27.6% of Manitoba children 0-14 years were Indigenous (First Nations – 18.5%; Metis – 8.7%; Inuit – 0.08%) (Statistics Canada, 2010b; Statistics Canada, 2010c; Statistics Canada, 2010e; Statistics Canada, 2010f; Statistics Canada, 2011).

In England, some minority groups are over-represented in the child welfare system, but the imbalances are not as large. For instance, although the mixed Caribbean/white ethnic group makes up only 1.2% of all children under 18 years, 2.8% of the children in care on March 31, 2002 were of this ethnic group. In addition, the black British ethnic group accounts for 3.0% of all children under 18 years, but 6.5% of children in care. Finally, other non-white ethnic groups, which constitute only 0.4% of all children under 18 years, account for 2.3% of children in care. White children, which represent 86.5% of all children under 18 years, account for 81.5% of the children in care (Thoburn, 2007).

Data from Canada show that Indigenous children make up less than 7% of children age 0–18, but about 22% of the substantiated child maltreatment investigations (Bounajm et al., 2014; Public Health Agency of Canada (PHAC), 2010). In addition, in March 2007, there were about 8,300 on-reserve children who were in care, which represented about 5% of all children aged 0–18 years living on-reserve. It is estimated that this is almost eight times the rate of children in care living off-reserve (Office of the Auditor General of Canada, 2011).

Rates and disparities also vary dramatically across provinces. Compared to non-Indigenous children, Indigenous children in Nova Scotia are three times more likely to be in care, whereas Indigenous children in Manitoba are 19 times more likely to be in care than non-Indigenous children; British Columbia, Alberta, and Saskatchewan are between these extremes, with about a tenfold difference (Sinha et al., 2011).

Brief History of Indigenous Child Protection in Canada

To better understand the over-representation of Indigenous children in care in Canada, it is helpful to understand the history and circumstances of child protection for Indigenous children. Starting in the late 1800s and up until the 1950s, the Canadian federal government was responsible for Indigenous child protection via the *Indian Act*. "Child protection" between 1879 and 1946, however, mainly existed in the form of forced attendance at residential schools for Indigenous children aged 7–15 years (Gilbert, Patron, & Skivenes, 2011; Milloy, 1999; Sinha et al., 2011). The *Indian Act* enforced attendance at residential schools by giving truancy officers the power to search any place where Indigenous children were suspected to be and deliver those children to school. Other methods to apprehend Indigenous children included the coercion of parents and forcible removal of children. Orphaned and neglected children were also taken to residential schools (Sinha et al., 2011).

Religious authorities typically operated residential schools, in which, as it is now known, many children experienced severe physical and sexual abuse and neglect. Indigenous children were forced to discard their cultural and linguistic traditions due to an official government mandate to assimilate them into the general population (Gilbert et al., 2011; Milloy, 1999; Royal Commission on Aboriginal Peoples, 1996). Overcrowding also became a major issue when funding from the federal government did not keep up with expansion of the residential school system. Children often had poor living conditions and experienced shortages of food and clothing. The medical needs of the children were not met, and diseases spread easily through the over-crowded schools (Bryce, 1922; Milloy, 1999). Many Indigenous children died as a result of the poor conditions, disease, and neglect (Miller, 1996; Milloy, 1999; Royal Commission on Aboriginal Peoples).

The legacy of these residential schools includes generations of parents who did not raise or know their own children, the destruction of families and communities, and the overrepresentation of Indigenous children in the child welfare system (Gilbert et al., 2011; Sinha et al., 2011). The cruelty towards, and poor outcomes for, the Indigenous children who attended residential schools was acknowledged by the Government of Canada in 2007 when Prime Minister Stephen Harper offered a formal apology on behalf of Canada to all those affected by the residential school system and the policies associated with it (Gilbert et al., 2011).

Starting in the 1950s, the residential school policy began to relax and provinces were increasingly authorized to intervene in matters of child protection on reserve lands. What resulted was the provincial authorities took thousands of Indigenous children into their protection, an episode commonly referred to as the "Sixties Scoop" (Gilbert et al., 2011; Sinha et al., 2011). Between 1960 and 1990, over 11,000 Indigenous children were adopted,

largely by non-Indigenous guardians, separating them from their cultures and families (Johnston, 1983; Royal Commission on Aboriginal Peoples, 1996). It was after this period that Indigenous peoples were finally granted more power with respect to child protection (Gilbert et al., 2011). As of 2008, 125 Aboriginal child and family services agencies existed in Canada, including 84 First Nations agencies mandated to conduct child welfare investigations (Sinha et al., 2011). Despite this progress, Indigenous children are still over-represented in child protective services in Canada (Gilbert et al., 2011). Indeed, Blackstock (2007) notes that there are now three times more First Nations children in care in Canada than there were First Nations children in residential schools during the height of the residential school programs. Indigenous children are more often taken into care as a result of neglect due to poverty and poor housing, rather than abuse (Blackstock, 2007).

Educational Outcomes of Children in Care³

Studies from Canada, the United Kingdom, and the United States suggest that children in care experience lower academic achievement compared to the general population, including lower rates of high school graduation and entry to post-secondary education (Blome, 1997; Brownell et al., 2010; Burley & Halpern, 2001; Courtney, Piliavin, Grogan-Kaylor, & Nesmith, 2001; Mech, 1994; Pecora et al., 2006). Studies have suggested that the poorer educational outcomes of children in care occur regardless of individual desire or motivation to excel academically (Courtney et al., 2001; Munro, Macdonald, Skuse, & Ward, 2002; Ontario Association of Children's Aid Societies, 2008; Stoddard, 2012). Indeed, research has demonstrated that children in care in Canada receive inadequate support considering their complicated profiles (Manser, 2007; Ontario Association of Children's Aid Societies, 2008; Reid & Dudding, 2006; Trout, Hagaman, Casey, Reid, & Epstein, 2008; Tweedle, 2007), despite school programs aimed at addressing issues related to youth at risk (Gitterman & Young, 2007; Zegarac & Franz, 2007).

The impact of being in care is multifaceted. Research suggests that the following events, which have a negative effect on educational outcomes, are more likely for children in care compared to the general population:

- school changes (Blome, 1997; Burley & Halpern, 2001; Castrechini, 2009; Courtney et al., 2001; Merdinger, Hines, Osterling, & Wyatt, 2005; National Working Group on Foster Care and Education, 2014; Pecora et al., 2006; Smithgall, Jarpe-Ratner, & Walker, 2010);
- missing more school when they move (Gustavsson & MacEachron, 2011; National Working Group on Foster Care and Education, 2011; National Working Group on Foster Care and Education, 2014; Osborn & Bromfield, 2007; Stone, 2007);
- spending less time doing homework (Blome, 1997);
- being absent or skipping school (Courtney, Terao, & Bost, 2004; Kortenkamp & Ehrle, 2002; National Working Group on Foster Care and Education, 2011; National Working Group on Foster Care and Education, 2014; Scherr, 2007; Stone, 2007; Zetlin & Weinberg, 2004);
- being suspended or expelled (National Working Group on Foster Care and Education, 2014; Scherr, 2007; Smithgall, Gladden, Yang, & Goerge, 2005; Zima et al., 2000);
- attending special education classes (Courtney et al., 2001; Pecora et al., 2006; Scherr, 2007);
- living independently while trying to complete an education (Blome, 1997; Rutman, Hubberstey, Barlow, & Brown, 2005);
- receiving less financial support from parents (Blome, 1997);
- repeating a grade (Burley & Halpern, 2001; Courtney et al., 2001; National Working Group on Foster Care and Education, 2011; National Working Group on Foster Care and Education, 2014; Osborn & Bromfield, 2007; Pecora et al., 2006; Scherr, 2007); and
- dropping out of school (Wiegmann, Putnam-Hornstein, Barrat, Magruder, & Needell, 2014).

³ We are extremely grateful to Mike Caslor (Building Capacity Consulting Services) for sharing his comprehensive resource list and summary of findings on educational outcomes for children in care; the literature he collated was the basis for this section of the report.

The factors influencing children's experiences at school are complex (Darmody et al., 2013). Studies have shown that children who have social or emotional difficulties perform less well in school (Brownell et al., 2010; Hymel & Ford, 2014; Janosz, 2014). This is particularly relevant for children in care because these children tend to experience more emotional and behavioural problems that impact their education than children not in care (National Working Group on Foster Care and Education, 2014). There is evidence to suggest that early interpersonal behaviour predicts academic outcomes at least as well as intellectual factors. Children's social behaviour, along with low socioeconomic status (SES), family characteristics, and early academic difficulties are associated with decreased likelihood of graduation (Hymel & Ford, 2014; Janosz, 2014).

Peer relationships also play an important role in school outcomes. Having a friend and being well-liked have been associated with greater academic performance and interest, and less school avoidance in children throughout the school years, starting as early as kindergarten. However, children who are friendless or show aggression tend to be at risk for poorer academic performance, repeating a grade, being absent, or skipping school (Hymel & Ford, 2014; Vitaro, 2014). This is particularly important for children in care who, as discussed previously, more frequently change schools, miss school days (due to legitimate absences or skipping school), and attend special education classes compared to the general population. These factors put children in care at an even greater risk of social isolation and poor school adjustment (Darmody et al., 2013; Hymel & Ford, 2014; National Working Group on Foster Care and Education, 2014).

Poor school adjustment is associated with peer victimization as well as peer aggression. A lack of peer relationships during elementary school will gradually lead children to disengage from school activities and then withdraw from school entirely. Marginalized children often associate with each other, possibly reinforcing the limited value they may place on educational success. Social integration and the promotion of social and emotional skills is important in early childhood education (Hymel & Ford, 2014; Vitaro, 2014). However, it should also be noted that not all children that had negative school outcomes experienced problems at school in early childhood (Janosz, 2014).

A student's relationships with teachers and parents are also important for children's educational outcomes, starting as early as kindergarten. Positive relationships with teachers are associated with better school outcomes and more positive disposition toward school (Hymel & Ford, 2014; Vitaro, 2014). A child's lack of positive relationships with adults in his/her life may be a predictor of school disengagement over time (Hymel & Ford, 2014). Darmody et al. (2013) present children's perspectives on how adults can influence their educational outcomes while in care. They report that children in care appreciate educational support and encouragement from their foster parents. Birth parents may also play a positive role in the educational outcomes of children who are already in care. Children in care have reported that the professional staff at residential care homes can have a positive impact on their educational outcomes by placing a high value on their education, including helping with homework. According to children in care, social workers can also have an impact on their education specifically. Also, children in care have reported social workers not being directly supportive of education, and frequent changes of assigned social workers made it difficult for children in care to build relationships with them (Darmody et al., 2013).

Various forms of trauma experienced by children before entering care, such as maltreatment, neglect, and being removed from family, may influence their cognitive functioning, their ability to focus in a classroom setting, and their behaviours (National Working Group on Foster Care and Education, 2014; Reid & Dudding, 2006; Stone, 2007; Trout et al., 2008). In addition, children in care often have inconsistent social supports and low academic expectations by others (Choice et al., 2001; Courtney et al., 2001; Jackson & McParlin, 2006; Stone, 2007).

When compared to children not in care, a higher proportion of children in care are tested and receive funding for learning disabilities (Courtney et al., 2001; Hunt & Marshall, 2001; Sullivan, Jones, & Mathiesen, 2010; Trout et al., 2008); 43% of children in care receive special education services compared to 7% of children not in care (Flynn & Biro, 1998). Furthermore, 36% of children in care in British Columbia in grades 4, 7, and 10 were identified as having a disability compared with 5% of children not in care (Mitic & Rimer, 2002), while 49% of children in care in Ontario aged 16-21 had behavioural issues that may lead to placement in special education settings (Ontario Association of Children's Aid Societies, 2008). In Ontario between 2008/09 and 2009/10, 56% of children in care aged 10–17 received special education supports because of a disability that limited their learning (Stoddard, 2012). Research has shown that students placed in a special education program are not likely to return to mainstream classrooms (Jackson & McParlin, 2006).

A meta-analysis of the relationship between school mobility and school performance found that students who changed schools more frequently had lower reading and mathematics achievement, as well as a higher likelihood of withdrawing from school (National Working Group on Foster Care and Education, 2014; Reynolds, Chen, & Herbers, 2009). With each school change, research shows that children fall further behind (National Working Group on Foster Care and Education, 2014; Reynolds, Chen, & Herbers, 2009). With each school change, research shows that children fall further behind (National Working Group on Foster Care and Education, 2014), even when controlling for variables such as family SES and other demographic factors associated with academic achievement and school mobility (Kerbow, 1996). Frequent school changes also make it challenging for children to develop long-lasting, supportive relationships with teachers and peers. Research has shown that supportive relationships and a positive educational experience help to develop resilience and improve overall well-being, which can lead to higher rates of high school graduation (Hymel & Ford, 2014; National Working Group on Foster Care and Education, 2014).

In general, children in care perform poorer on standardized tests than the general population (Burley & Halpern, 2001; Emerson & Lovitt, 2003; National Working Group on Foster Care and Education, 2014; Smithgall, Gladden, Howard, Goerge, & Courtney, 2004; Wiegmann et al., 2014; Zetlin & Weinberg, 2004). In California, children in care had the lowest participation rate in the state's standardized testing program (STAR Program), the highest withdrawal rate, and the lowest high school graduation rate, even compared to other at-risk students, such as students with low SES, English learners, and students with disabilities. However, among the children in care, there was variability in these rates. For instance, the graduation rate of children in care decreased with increasing number of placements and depended on the placement type, with children in group homes having the lowest graduation rate. Similarly, the withdrawal rate of children in care increased with increasing number of placements and depended on the placement type, with children in group homes having the lowest made depended on the placement type, with children in general population, including students with low SES, with students in group homes and those experiencing three or more placements in care performing the worst (Wiegmann et al., 2014).

As a result of these numerous factors, children in care, in general, have lower high school graduation rates compared to the general population (Blome, 1997; Burley & Halpern, 2001; Courtney et al., 2001; Grand Jury of Orange County, 2000; Mech, 1994; National Working Group on Foster Care and Education, 2014; Nevada KIDS COUNT, 2001; Pecora et al., 2009; Reilly, 2003; Rutman et al., 2005) and are much more likely to graduate with a high school equivalency credential (passing the General Educational Development (GED) tests) rather than a high school diploma (Bussey et al., 2000; National Working Group on Foster Care and Education, 2011; National Working Group on Foster Care and Education, 2011; National Working Group on Foster Care and Education, 2011; National Working Group on Foster Care and Education, 2011; National Working Group on Foster Care and Education, 2011; National Working Group on Foster Care and Education, 2011; National Working Group on Foster Care and Education, 2014; O'Brien et al., 2010).

In summary, Manitoba has a very high rate of children in care compared to other jurisdictions, and the majority of these children are Indigenous. The research literature tells us that children in care tend to have poorer educational outcomes than other children, often a lasting result of maltreatment, prior adverse circumstances, and being separated from family (National Working Group on Foster Care and Education, 2014; Reid & Dudding, 2006; Stone, 2007; Trout et al., 2008).

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CHAPTER 2: METHODS

General Methods

This report presents descriptive and multivariate statistical analyses regarding children removed from their homes and placed in the care of Child and Family Services (CFS). Referred to as "children in care" in this report, these are children who have been removed from the care of their original families because of a situation where authorities have deemed their family unable or unfit to look after them properly. In some cases, children are voluntarily placed into care by their parents or guardians. Children can come into care for a variety of reasons including abuse and neglect, illness, death of a parent, addiction issues or conflict in their family, disability, or emotional problems. Some children are placed in care for very short time periods before being returned to their families, whereas others may spend many years in care. Children in care do not include children who remain with or are returned to a parent or guardian under an order of supervision. Survey and qualitative analyses were not performed for this report; however, the authors recommend these types of analyses as follow-up to provide context to the findings reported here.

This chapter describes the databases and general methods used in this report. Specific methods used for descriptions of children in care and their educational outcomes are outlined in Chapter 3 and Chapter 4, and those used for the analysis of factors associated with educational outcomes for children in care are outlined in Chapter 5. Key terms used in this report are provided in Table 3.1 in Chapter 3.

Datasets Used in Report

This report used existing data contained in the Population Health Research Data Repository (Repository), which is housed at the Manitoba Centre for Health Policy (MCHP) at the University of Manitoba. All management, programming, and analyses of these data were performed using SAS[®] statistical analysis software, version 9.3.

The Repository is a comprehensive collection of administrative, registry, survey, and other data primarily relating to residents of Manitoba. It was developed to describe and explain patterns of healthcare use and profiles of health and illness, facilitating inter-sectoral research in areas such as healthcare, education, and social services. All data are anonymized before being transferred to MCHP. All datasets contain an encrypted version of the Personal Health Identification Number (PHIN) which allows for person-level, anonymous linkage across datasets and over time.

Within the Repository, several datasets from different sources were used:

- Family Services: for information on children in care and children living in families receiving protection or support services. All information on children in care and children in families receiving services from Child and Family Services (CFS) comes from the Child and Family Services Information System (CFSIS). Information on Indigenous groups used in this study was taken from CFSIS.⁴
- 2. Education and Advanced Learning: for information on school enrolment, academic performance (e.g., grade 12 Language Arts standards test results), high school completion, and school location (for school-level socioeconomic status (SES), urban vs. rural schools).
- 3. Healthy Child Manitoba Office: for Families First screening data, and Early Development Instrument (EDI) data. The Families First screening database was used to develop indicators of risk status (e.g., drug and alcohol use by mother during pregnancy). The EDI database was used to develop measures of early childhood outcomes (developmental health in each of five domains: physical well-being, social competence, emotional maturity, language and cognitive development, and general knowledge and communication skills), and school attendance for kindergarten.

⁴ This information is largely self-reported from parents or directly from the children. Categories within CFSIS include First Nations ("Status" and "non-Status"), Metis, Inuit, non-Indigenous and "not determined". Both on- and off-reserve First Nations children are included in this study.

- 4. Jobs and the Economy: for information on family receipt of income assistance.
- 5. Manitoba Health, Healthy Living and Seniors: for Manitoba Health Insurance Registry data, Hospital Abstracts data, Medical Services data, and Drug Program Information Network (DPIN) data to identify a child cohort (living in Manitoba), biological mother-infant relationships, and for information on health status (e.g., size for gestational age, identify children with developmental disabilities or a diagnosis of a mental disorder).
- 6. Statistics Canada Census: to generate area-level SES and income quintiles. Statistics Canada CANSIM tables determined the Manitoba child population by Indigenous group.
- 7. Winnipeg Regional Health Authority (WRHA): for data from the Manitoba FASD Centre, used to identify children with Fetal Alcohol Spectrum Disorder (FASD) to help define children with developmental disabilities.

For additional information on the datasets used in this report, see http://umanitoba.ca/faculties/medicine/units/ community_health_sciences/departmental_units/mchp/resources/repository/datalist.html.

Evaluation Period and Population

The Repository contains records from CFSIS dating back to the fiscal year 1992/93; however, the data have been found to be more complete and reliable from 1998/99 onward (Brownell et al., 2007). Therefore, analyses focused on children who were in care at any point between 1998/99 and 2011/12. We identified 27,693 children who were in care for at least one day between April 1, 1998 and March 31, 2012. When gathering historical information for this population (e.g., the age they first entered care), CFSIS data going back to 1992/93 were examined; however, incomplete data for these earlier years may bias some of the results. For example, child "A" is 15 years old and in care in 2005/06. Looking back at earlier records for Child A we find that his first *known* entry into care was in 1998/99 when he was 8 years old. It is possible that Child A was previously in care in 1993/94, when he was 3 years old, but this earlier period of care was not recorded. Given the available data, we would record that he entered care at 8 years old rather than 3 years old. Thus, the actual ages of entry for some children might be earlier than the ones we were able to report here.

Methods Used for Each Objective

The first three objectives of this report were to:

- 1. Describe the characteristics of children in care in Manitoba.
- 2. Describe the educational outcomes of children in care in Manitoba.
- 3. Identify factors that are associated with positive (and negative) educational outcomes for children in care in Manitoba.

For each of these objectives we used different types of analyses and study periods. Each are described below and further detail is provided in subsequent chapters where the analyses are discussed.

Analyses for Objective 1: Describing the Characteristics of Children in Care in Manitoba

In order to describe children in care in Manitoba (Chapter 3), we chose as our study population all children from birth to 18 years of age who had spent at least one day in the care of CFS between April 1, 2009 and March 31, 2012 (fiscal years 2009/10–2011/12). These children included those with both new (starting between 2009/10-2011/12) and existing (starting before April 1, 2009, but still in care after that date) episodes of care.⁵ Those who were 19 years or older at the start of the episode, and those who had previously been in care but were not in care between April 1, 2009 and March 31, 2012, were excluded from this analysis.

⁵ In this report, an episode of care refers to a section of time that a child is in the care of CFS; if a child goes out of care and then back in to care within seven days, it is considered one episode. Episodes of at least one day were included.

Analyses for Objective 2: Describing the Educational Outcomes of Children in Care in Manitoba

In order to examine the educational outcomes of children in care in Manitoba (Chapter 4), we used cross-sectional analyses of as many years of assessment data from the Education dataset as were available (for example, for grade 7 mathematics assessments, data were available from 2007/08 through 2011/12). Outcomes were compared for children who were:

- 1. Ever in care up to the time of the assessment; to identify children ever in care, CFSIS data going as far back as 1992/93 (depending on the outcome) was searched for any episodes of care.
- 2. Never in care (up until time of assessment), but whose families had ever during the child's lifetime (up until the time of assessment) received protection or support services from CFS⁶; CFSIS data going as far back as 1992/93 were used to identify this group of children.
- 3. Never in care and never received services from CFS (up until the assessment). This group included children who had never had contact with CFS up to the time of the assessment.

Analyses for Objective 3: Identifying Factors Associated with Positive and Negative Educational Outcomes for Children in Care in Manitoba

In order to identify factors that are associated with positive or negative educational outcomes for children in out-ofhome care in Manitoba (Chapter 5), we focused on children who had ever been in care; no comparisons were made in these analyses with children who had never been in care. We used regression modeling to identify which of the characteristics of children in care examined in Chapter 3 were related to key positive educational outcomes in Chapter 4. For example, what characteristics do the children in care who graduate from high school have in common? It is important to bear in mind, however, that even the vast data sources used in this study do not include a number of characteristics of children that may have an important impact on educational outcomes. For example, the data we used did not allow us to determine whether children had a close relationship with any adults who acted as mentors or role models, what their feelings about school were, or even how often they attended school.

Generalized Linear Models, including a Generalized Estimation Equation (GEE) where possible, were used to measure the association between the potential predictors and the educational outcomes of interest (e.g., for the grade 7 numeracy assessment, the number of children that met or approached expectations in all five of the competencies). Separate models were produced for each outcome of interest, with several explanatory variables (covariates) included in the models to determine their unique association with the educational outcomes. For each educational outcome, several sets of models were tested in order to identify all possible relationships between child, family, and school characteristics, and the educational outcomes.

⁶ Protection services are provided when a child is seen as in need of protection because his/her health or emotional well-being is endangered, but does not entail removal of the child from the home. Voluntary support services from CFS are available to families who request aid in the resolution of family matters. Although "protection" and "support" are distinct categories of services, they are analyzed together in this report because their distinctions are blurred within the CFSIS data (Brownell et al., 2012).

There were limitations regarding data available for analyses in this report that warrant acknowledgement. Although CFSIS data are available from 1992 onward, they are not complete for all years available because not all agencies entered data into the system. As described above, the data become more complete after 1998/99; however, previous reports have found that undercounting of children, particularly those living in the North, is still an issue with CFSIS (Brownell et al., 2012). For this reason it is likely that the analyses in this report do not include all children in care in Manitoba and may particularly undercount First Nations children.

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It was beyond the scope of this report to examine education outcomes specifically for young adults transitioning out of the care system. Based on discussions during meetings of this report's Advisory Group, this is an important group that warrants examination in future research.

Data about programs operating within classrooms, schools, or school divisions in Manitoba are not collected by Manitoba Education and Advanced Learning; thus, it was not possible to evaluate the success of specific Manitoba programs at improving outcomes for children in care. Chapter 6 summarizes findings from the research literature that has evaluated educational programs for children in care.

There are many factors that affect how well children do in school that could not be measured in this report. For example, whether and how often children are read to and spoken to at home, and the quality of relationships between children and adults in their lives, can have an impact on school outcomes for children in care and not in care. Data on these kinds of factors are not available in the MCHP Repository.

CHAPTER 3: DESCRIPTIVE INFORMATION

This report's first objective was to describe the characteristics of children in care in Manitoba. To do this, we took the cohort of children who were in care in Manitoba for at least one day between April 1, 2009 and March 31, 2012, and examined all the information we had available on these children for this time period and historically. There were 15,035 children⁷ who were in care for at least one day in Manitoba at some point during this time period.

Many of the terms used to describe children in care in this report come from the Child and Family Services Information System (CFSIS). Table 3.1 lists terms and definitions to help the reader better understand the characteristics of children in care described in this chapter.

⁷ These represent unique children rather than cases.

Term	Definition				
Allegation of Abuse	Accusation of physical, emotional or sexual abuse.				
Episode of Care	In this report, an episode of care refers to a section of time that a child is in the care of CFS; if a child goes out of care and then back in to care within seven days, it is considered one episode. Episodes of at least one day were included.				
Legal Status	Legal standing of the child in regards to the rest of the community.				
Legal Status: Missing	Legal status was not entered on the CFSIS record.				
Legal Status: Temporary Ward	Refers to a child who is under temporary guardianship of a CFS agency. All guardianship rights and responsibilities of the child's parents or guardians are suspended for a period of time determined by the court. http://www.childrensadvocate.mb.ca/are-you-an-adult-or- caregiver/definitions/				
Legal Status: Transitional Planning	Person-centered planning approach to help prepare youth for life as an adult. This includes assisting youth with special needs in securing employment, pursuing post-secondary education and fully participating in community life. http://www.mcf.gov.bc.ca/spec_needs/adulthood.htm				
Legal Status: Permanent Ward	Refers to a child who is under the permanent guardianship of a CFS agency. The guardianship rights of the child's parents or guardians have been terminated. http://www.childrensadvocate.mb.ca/are-you-an-adult-or- caregiver/definitions/				
Legal Status: Apprehension	A representative of CFS can apprehend a child in need of protection without a warrant and take the child to a place of safety. Upon apprehension, CFS has to apply to the court within four juridical days (four days that the court sits) for a hearing to determine whether the child is in need of protection. http://www.childrensadvocate.mb.ca/are-you-an-adult-or- caregiver/definitions/				
Legal Status: Voluntary Placement Agreement (VPA)	The Child and Family Services Act provides for a parent, guardian or other person who has actual care and control of a child, to enter into a voluntary placement agreement with an agency for the placing of a child without transfer of guardianship. http://www.childrensadvocate.mb.ca/are-you-an- adult-or-caregiver/definitions/				
Legal Status: Petition Filed for Further Order	Child in Care waiting for court to either renew a legal status or engaging in the process of getting court orders				
Placement: Foster Home	Approved home by an agency under the Foster Homes Licensing Regulation. (L. Jervis, personal communication, April 24, 2013.)				
Placement: Foster Home - specialized	Approved foster home with dedicated services for high needs children. May have fixed service fee or be part of a non-mandated agency program. (L. Jervis, personal communication, April 24, 2013.)				
Placement: Place of Safety	A place designated for short term, emergency care e.g., family, supervised hotel/motel/apartment, women's shelter. (L. Jervis, personal communication, April 24, 2013.)				

Table 3.1: Child and Family Services (CFS) terms used in this report

Table 3.1: Continued

Term	Definition				
Placement: Unknown	Living arrangement not approved by agency. (L. Jervis, personal communication, April 24, 2013.)				
Placement: Kinship Care	Living arrangements with a caregiver who was involved in the child's life before the child entered into care by CFS. These include placements where children had any of the following categories: Foster Home; or Place of Safety; or Own Home Relative, AND had any of the following Placement Types: Child Specific-Family; or Safety Family Residence; or No Placement.				
Placement: Adoption Probation	The child is being considered for transition into an adopted family.				
Reason for Admission	Reason for the child to enter into the care of CFS.				
Reason for Admission: Abandonment	Parents leave without stating either the plan for the child or for their return. Implies disinterest in the child's fate. (L. Jervis, personal communication, April 24, 2013.)				
Reason for Admission: Desertion	Parents leave with a plan for the child but no plan for their return. Implies interest in the child. (L. Jervis, personal communication, April 24, 2013.)				
Reason for Admission: Conditions of Child	Parents can't provide care, temporarily or permanently, due to the child's mental or physical special needs. (L. Jervis, personal communication, April 24, 2013.)				
Reason for Admission: Conditions of Parents	Parents can't provide care, temporarily or permanently, due to physical disability, mental illness, emotional illness, severe physical illness, mental deficiencies, etc. (L. Jervis, personal communication, April 24, 2013.)				
Reason for Admission: Conduct of Child	Parents can't provide care, temporarily or permanently, due to the child's behaviour—e.g., running away, defiance, etc. (L. Jervis, personal communication, April 24, 2013.)				
Reason for Admission: Conduct of Parents	Parents don't or won't provide proper care e.g., are abuse, violence, alcohol or drugs abuse, medical refusal, etc. (L. Jervis, personal communication, April 24, 2013.)				
Reason for Admission: Voluntary Relinquishment	Legal guardian formally gives the child to an agency. (L. Jervis, personal communication, April 24, 2013.)				
Reason for Admission: Transfer Supervision	Formally changing supervision of the case from one agency or region to another. (L. Jervis, personal communication, April 24, 2013.)				
Substantiated Abuse	Allegation or incident of abuse is considered substantiated if the balance of evidence indicates that abuse or neglect has occurred.				

Characteristics of Children in Care in Manitoba

Reasons for Being Taken into Care

Children can be taken into care for a variety of reasons, including abuse (which includes physical, sexual and emotional abuse), neglect, death or conflict in the family (including witnessing intimate partner violence), or if the child has a disability or emotional or behavioural difficulties. CFSIS categorizes these reasons into the groupings shown in Table 3.2. A child may have more than one episode of care during the time period examined. In such cases, each episode was counted separately. Thus, children with more than one episode of care during the time period were counted more than once in the table.

Design for Entry into Com	2009/10		2010/11		2011/12	
Reason for Entry Into Care	Frequency	Percent	Frequency	Percent	Frequency	Percent
Conduct of parent or other	6,306	57.38	6,229	56.62	6,856	58.75
Conditions of parent	1,936	17.62	2,085	18.95	2,161	18.52
Conduct of child	628	5.71	634	5.76	644	5.52
Abandonment and Desertion	543	4.94	526	4.78	520	4.46
Other	463	4.21	429	3.90	421	3.61
Conditions of child	313	2.85	325	2.95	308	2.64
Transfer in (from MB agency)	299	2.72	296	2.69	273	2.34
Voluntary relinquishment	209	1.90	186	1.69	206	1.77
Missing open reason*	134	1.22	114	1.04	84	0.72
Conduct of parent or medical refusal	92	0.84	91	0.83	115	0.99
Transfer in (from out of province)	62	0.56	81	0.74	78	0.67

Table 3.2: Frequency and Percentage of Care Episodes by Reason for Entry into Care, by Year

* Likely records where cases are pending and not open yet.

Across the three most recent years of data, the most frequent reasons for going into care are consistent. Most children go into care due to the conduct or conditions of their parent(s). More specific reasons for why children went into care are not included in the data system. Such categories might include things like parental addictions, parental intimate-partner violence, abuse, neglect, or parental illness. Table 3.2 shows that conduct of parent or other accounts for over half of the reasons for children being taken into care (56%–59% over the three years), followed by conditions of parent(s), which account for about 18% of the reasons for care (18%–19% over the three years). Conduct of the child, which may include things like behaviour disorders or aggressive behaviour, accounts for over 5% of the reasons for being taken into care, and abandonment and desertion accounts for over 4% in each of the years examined.

At any given time, the age distribution of children in care is fairly equal across age groups. That is, there is not an over-representation of one particular age group over others (see Figure 3.1).

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Figure 3.1: Percentage of Children in Care between 2009/10 and 2011/12, by Age

We also looked at each child's age at the start of their first episode of care.⁸ Figure 3.2 shows that almost one third (32.9%) of the children in care during our study period had their first episode before they turned 1 year of age. This drops to 10.8% for entry into care at age 1, and continues to drop through the preschool years.



Figure 3.2: Percentage of Children in Care between 2009/10 and 2011/12, by Age at First Care Episode

Given the high percentage of children whose first episode of care was during their first year of life, we also looked at the percentage of children in care who were apprehended at birth. Apprehensions at birth often occur as a result of a "birth alert" that is issued by CFS when they are aware of expectant mothers considered to be high risk with respect to the kind of care they may provide to their newborns (Family Services and Housing, 2009). To look at apprehensions at birth, we looked at children apprehended within seven days of their birth. Figure 3.3 shows that for all children in care between 2009/10 and 2011/12, 15% were apprehended at birth. When we focused on those whose first entry into care was during their first year of life (not shown in the graph), we found that almost half of these children apprehended at birth (46.3%, or 2,290 out of 4,947). It should be noted that over half (56.6%) of the children apprehended at birth became permanent wards (see section below on Legal Status for additional information). As shown in Figure 3.3, 50% of the children who were apprehended at birth were apprehended on the day of birth (day 1).

⁸ It should be noted that because CFSIS data before 1998 may be incomplete, the age of first entry for older children may not be accurate; they may have had an earlier entry into care that was not captured in the CFSIS data.


Figure 3.3: Percentage of Children in Care between 2009/10 and 2011/12 that were Apprehended at Birth*

* Within 7 days after birth

Sex

The sex distribution of children in care is relatively equal when all ages are examined together. Figure 3.4 shows about a fifty-fifty split for males and females in each of the three years examined. There are only slight differences in the sex distribution when analyses are disaggregated by age group (see Appendix Figure 1.1).



Figure 3.4: Percentage of Children in Care between 2009/10 and 2011/12, by Sex

Number of Care Episodes

Children can go in and out of care during their childhood. For the children in care for at least one day at any time between 2009/10 and 2011/12, we looked back through their records to determine how many different episodes of care they had experienced.⁹ Close to half (46.6%) of children in care between 2009/10 and 2011/12 had only one care episode, 30.7% had two episodes, 12.4% had three episodes, and 10.3% of children had four or more (see Figure 3.5).





⁹ Again, it should be noted that because CFSIS data prior to 1998 may be incomplete, the number of episodes of care for older children in care may be undercounted.

Children in care can be put into a number of different "placement types," referring to where or with whom the child resides. For example, some children may live in a foster home, whereas others may live in a "place of safety" (see Table 3.1). Unfortunately, for 46.5% of placements between 2009/10 and 2011/12, the information on the type of placement was listed as "not known," "missing placement category," or "not specified," because data had not been entered into CFSIS (see Figure 3.6).¹⁰ As shown in Figure 3.6, 24.1% of children in care in this period were placed in foster homes. Another 9.7% of children were in residential care/group home, and an additional 3.7% were in a specialized foster home; 12.1% of children were in kinship care¹¹, 2.8% of children were in a place of safety, and the remaining 1.2% were in other categories, including group home, independent living, and select adoption probation.

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- 10 Because of the large number of cases with current placement information missing, we conducted an additional analysis in which, for all cases with missinghere, for all cases with missing placement information, we searched back in CFSIS to determine whether that case had placement information from previous placements, and if that information was available we applied it to the case. A graph of type of placement using this data for cases with current missing placement information can be found in Appendix Figure 1.2. This graph shows that even when we use previous placement information to try to reduce the "unknown" category, 39.5% of cases with unknown placement type remain.
- 11 Information on type of placement comes from a variable in CFSIS called Placement Category. Kinship care is not listed as a type of placement under this variable but requires combining two different variables. In order to determine kinship care, we used a combination of Placement Category and Placement Type. Children whose placement category was "foster home," "place of safety," or "own home relative," AND whose placement type was "child specific family," "safety family residence," or "no placement" were categorized as "kinship care." This method of determining kinship care likely undercounts actual placements in kinship care to some degree.

Within a single episode of care, a child can have a number of placement changes (e.g., moving from one foster home to another, or from a place of safety to a foster home). When we looked at the number of placements per episode, we found that 55.3% of episodes had only one placement, 17.6% had two placements, and 27.1% had three or more placements (see Figure 3.7).^{12,13}

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¹² Children who are apprehended are often put in a temporary placement in the first 72 hours of care, while arrangements can be made for a more stable placement. These temporary placements are included here, as the purpose of this measure is to determine the number of changes a child experiences.

¹³ This may be an undercount of the number of placements per episode. When a child's placement is listed as "missing", it means there was a period of time in care when no placement information was entered into CFSIS. In our analysis this "missing" was counted as one placement, however, it is possible the child may have experienced multiple placements during that time period.

Legal Status

When a child enters care, it means that CFS has taken legal responsibility for that child. Children can come into care under a variety of legal statuses, and they can also change legal status while they are in care. The possible legal statuses are: apprehension, temporary ward, permanent ward, voluntary placement agreement, petition filed for further order (PFFO), transitional planning, and missing. Figure 3.8 shows the latest available legal status in the most recent episode of care for children in care between 2009/10 and 2011/12. For 27.0% of children in care, their latest available legal status was apprehension (with PFFO included too); 24.6% of children were permanent wards; 16.4% had a voluntary placement agreement; 9.8% were temporary wards; and 5.8% were in transitional planning, a category comprising permanent wards who are close to "aging out" of the care system or remain in care with an extension of care (18–21 years of age).¹⁴



Figure 3.8: Percentage of Children in Care between 2009/10 and 2011/12, by Latest Available Legal Status

¹⁴ Note that these percentages will differ from what is found in the Family Services Annual Report because the data presented here have a large number of cases with missing legal status in the CFSIS.

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Figure 3.9: Percentage of Children in Care between 2009/10 and 2011/12, by Age and Latest Available Legal Status

16 We have used their most recent legal status.

We conducted an additional analysis where, for those cases with missing legal status information, we determined whether there 15 was a previous legal status in CFSIS. If there was, the most recent previous legal status was applied. A graph from this analysis is given in Appendix Figure 1.3.

Length of Stay in Care

Length of stay in care is strongly related to age of entry into care: children who enter care at younger ages tend to stay longer (Figure 3.10). Of children who enter care in their first year of life, 80% stay at least 90 days, 70% stay more than six months, 60% stay at least one year, 50% stay at least 19 months, and 26% stay at least 12 years in care. For five-year-olds, 80% stay at least three weeks, 70% stay at least 2.8 months, 60% stay at least 5.5 months, 50% stay at least nine months and 26% stay at least three years. Older age groups (10-year-olds and 14-year-olds) follow the same pattern as five-year-olds.

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Figure 3:10: Number of Years in Care by Age at Entry



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Figure 3.11: Number of Years in Care by Legal Status Children in Care, 2009/10 – 2011/12

Abuse

Child maltreatment includes both abuse and neglect. CFSIS identifies cases that have allegations or substantiations of abuse; however, nothing specific is documented in CFSIS for cases of neglect. Abuse includes physical, sexual, or emotional abuse. Over the years, changes have been made to the manner in which abuse is recorded. These data were consistent from April 1, 2007 to March 31, 2012. In order to examine consistent data, we looked at abuse allegations and substantiations for children in care at any time between 2009/10 and 2011/12, and whose care episodes were opened on or after April 1, 2007.¹⁷ For this timeframe, 11.7% of cases (1,242 of 10,596) had allegations of abuse at some point (see Figure 3.12). Of those cases with allegations, 11.0% were substantiated (137 of 1,242). In other words, only 1.3% (137 of 10,596) of the subsample of cases that were opened on or after April 1, 2007 had substantiated abuse.¹⁸ The mother was the most frequent perpetrator in both alleged and substantiated cases (Table 3.3). For alleged cases of abuse, the perpetrator was the mother in 20.6% of cases, unknown in 17.5% of cases, the father in 15.0% of cases, and the step-father in 6.2% of cases. For substantiated cases of abuse, the perpetrator was the mother in 24.5% of cases, the father in 17.4% of cases, the step-father in 8.7% of cases, and unknown in 7.6% of cases. The majority of allegations and substantiations involved physical abuse (Table 3.4). For allegations, 69.4% of the cases involved physical abuse and 32.6% involved sexual abuse. For substantiations, 60.9% of the cases involved physical abuse and 40.8% involved sexual abuse.





¹⁷ Note that although the number of children in care at any point during the three years 2009/10 through 2011/12 was 15,035, this analysis is based on a subset of these children (10,596 children accounting for 13,214 in-care cases).

¹⁸ Other possible outcomes for allegations were not determined, pending/investigation ongoing, maltreatment inconclusive, and unsubstantiated.

Downstrater	Allegations		Substantiations	
Perpetrator	Count*	% of Total	Count*	% of Total
Mother	416	20.6%	45	24.5%
Unknown	353	17.5%	14	7.6%
Father	302	15.0%	32	17.4%
Step-father	126	6.2%	16	8.7%
Foster mother	116	5.8%	S	S
Foster father	87	4.3%	0	0.0%
No relationship	85	4.2%	10	5.4%
Friend or family	69	3.4%	8	4.3%
Brother	65	3.2%	13	7.1%
Grandmother	57	2.8%	0	0.0%
Mother's common-law partner	55	2.7%	S	S
All other	352	17.5%	48	26.1%

Table 3.3: Perpetrator for Abuse Allegations and Substantiations

Children in Care, 2009/10 – 2011/12, with Case Opened on or after April 1, 2007

* An alleged or substantiated case may have more than one perpetrator, thus column totals may add to greater than the total cases involved and percent totals may be more than 100%.

s = suppressed due to counts less than six

Table 3.4: Type of Abuse for Allegations and Substantiations

Children in Care, 2009/10 - 2011/12 with Case Opened on or after April 1, 2007

	Allegations		Substantiations		
Abuse Type	Count*	% of Total	Count*	% of Total	
Physical	1399	69.4%	112	60.9%	
Sexual	658	32.6%	75	40.8%	
Emotional**	S	S	S	S	

* An alleged or substantiated case may have more than one abuse type, thus column totals may add to greater than the total cases involved and percent totals may be more than 100%.

**Due to counts less than 6 for substantiations for emotional abuse, the count of allegations are also suppressed in order to preserve confidentiality

s = suppressed due to counts less than six

Indigenous Group

A high proportion of Manitoba children in care are from an Indigenous group (First Nations, Metis, or Inuit). Information about Indigenous group is recorded in CFSIS.¹⁹ Of the children in care at any point between 2009/10 and 2011/12, CFSIS recorded that 62.3% were First Nations, 11.8% were Metis, and 0.3% were Inuit. Given that children from these Indigenous groups compose about 26% of the child population in Manitoba (Manitoba Aboriginal and Northern Affairs, 2012), they are greatly over-represented in the population of children in care. Of the remainder of children in care, 17.5% were non-Indigenous, and 8.1% were "not determined" (Figure 3.13).²⁰

¹⁹ This information is largely self-reported from parents or directly from the children. CFSIS further sub-divides First Nations into "Status" and "non-Status" (again, largely according to self-report); for these analyses the two sub-categories were combined and displayed as "First Nations".

²⁰ Note that the total Indigenous children calculated from CFSIS (74.4%) is lower than what is reported in the Family Services Annual Reports shown in Table 1.1 (over 85% for the same time period). This discrepancy may suggest not all Indigenous children are being identified in the CFSIS data.



Figure 3.13: Percentage of Children in Care between 2009/10 and 2011/12, by Indigenous Group

As a next step, we wanted to determine at a population level what percentage of children in each Indigenous group were in care. The population registry file in the MCHP Repository does not indicate Indigenous group, so we combined CFSIS data on children in care by Indigenous group with data from Statistics Canada on the Manitoba child population (Statistics Canada, 2010a; Statistics Canada, 2010b; Statistics Canada, 2010c; Statistics Canada, 2010d; Statistics Canada, 2010e; Statistics Canada, 2010f). The Statistics Canada data were reported as of 2006, and covered ages 0 to 14 years, so we applied the same limits to the CFSIS data. We calculated two different values: first, the percent of children who were in care for at least one day in the year 2006,²¹ and second, the percent of children who were in care for at least one day in the year 2006,²¹ and second, the percent of children who were in care for at least one day in the year 2006,²¹ and second, the percent of children who were in care for at least one day in the year 2006,²¹ and second, the percent of children who were in care for at least one day in the year 2006,²¹ and second, the percent of children who were in care for at least one day in the year 2006,²¹ and second, the percent of children who were in care for at least one day in the year 2006,²¹ and second, the percent of children who were in care for at least one day in the year 2006,²¹ and second, the percent of children who were in care for at least one day in the year 2006,²¹ and second, the percent of children who were in care for at least one day in the year 2006,²¹ and second, the percent of children who were in care for at least one day in the year 2006,²¹ and second the year 2006,²²

Table 3.5 shows the results of these calculations. For non-Indigenous children, less than 0.6% aged 0 to 14 years were in care at any point during 2006, compared to 9.0% of Indigenous children. Categorized by Indigenous group, 12.1% of First Nations children, 3.3% of Metis children, and 13.7% of Inuit children in Manitoba were in care at some point during 2006. The percent of non-indigenous children ever in care was 1.7%, compared to 16.6% of Manitoba Indigenous children. Categorized by Indigenous group, 22.4% of First Nations children, 6.4% of Metis children, and 15.4% of Inuit children were ever in care. Stated another way, in 2006, 22 out of every 100 First Nations children—or one of every four to five First Nations children—in Manitoba was taken into care at some point before 15 years of age. Compare this to just under two out of every 100 non-Indigenous children who were taken into care at some point before the age of 15. The rate of Indigenous children in care was over 13 times higher than for non-Indigenous children. This over-representation is higher than what is found in Australia, where the rate of Indigenous children in care is 7.3 times the rate for non-Indigenous children (Australian Institute of Health and Welfare (AIHW), 2007).

²¹ This analysis was re-run using 2011 Census information and can be found in the Appendix Table 1.1.

²² Note that because CFSIS data were incomplete in earlier years, calculations of percent of children in care may be underestimates.

Indiaonous Group (N)*	% in care at least	% ever in care up to	
Indigenous Group (N)*	1 day in 2006 (n)	December 31, 2006 (n)	
Non-Indigenous (166,865)	0.6% (1,011)	1.7% (2,756)	
Indigenous (58,195)	9.0% (5,221)	16.6% (9,678)	
First Nations (37,460)	12.1% (4,545)	22.4% (8,383)	
Metis (19,710)	3.3% (652)	6.4% (1,268)	
Inuit (175)	13.7% (24)	15.4% (27)	

 Table 3.5: Percentage of Manitoba Child Population Taken into Care, by Indigenous Group

 Children 0-14 years of age, 2006

*Sources: Statistics Canada, 2010b; Statistics Canada, 2010c; Statistics Canada, 2010e; Statistics Canada, 2010f.

Indigenous children in care are more likely than non-Indigenous children in care to have first entered care during their first year of life, and they are more likely to be apprehended at birth compared to non-Indigenous children. As shown in Figure 3.14, the percentage of First Nations children in care who first entered care in their first year of life was 35.5% and for Metis children it was 29.3%, compared to 21.1% for non-Indigenous children. Children in care who were in the Indigenous group "not determined" had the highest percentage of entry before age 1, at 44.5%; due to the small number of Inuit children in care in Manitoba, they are not included in the figure.

As shown in Figure 3.15, 15.6% of First Nations children in care and 15.3% of Metis children in care were apprehended at birth, compared to 10.2% of non-Indigenous children in care. The "not determined" group had the highest percent of children in care who were apprehended at birth, at 23.3%. Given that the majority of children in care who were apprehended at birth become permanent wards (56.6%; see section on age, above), it is not surprising that a higher percentage of Indigenous children are permanent wards compared to non-Indigenous children (35.6% First Nations and 30.8% Metis compared to 27.8% non-Indigenous; see Figure 3.16). Due to the small number of Inuit children in care in Manitoba, they are not included in Figures 3.15 and 3.16.



Figure 3.14: Percentage of Children in Care between 2009/10 and 2011/12 Whose First In-Care Episode Occurred Before Age One, by Indigenous Group

Figure 3.15: Percentage of Children in Care between 2009/10 and 2011/12 who were Apprehended at Birth*, by Indigenous Group





Figure 3.16: Percentage of Children in Care between 2009/10 and 2011/12 who are Permanent Wards, by Indigenous Group

Characteristics of Children in Care in Manitoba Compared to Children not in Care

For a number of measures that we had available for all children in Manitoba, we compared children in care to children who were not in care but whose families received services from CFS, and also to children in the general population not receiving any form of child welfare services. As with the analyses above, the children in care were defined as those in care at any point during fiscal years 2009/10 through 2011/12. Children receiving services were those who were not in care during this time, but whose families received services from CFS any time during the same period. Children in the general population were neither in care nor received services from CFS during the time period.²³

Mother's Age at First Birth

Mother's age at first birth refers to the age a child's mother was when she gave birth to her first child. Children born to mothers whose first birth is during the teen years tend to have poorer outcomes than children born to mothers who were older when they started having children (Brownell et al., 2010; Jutte et al., 2010). Children who were in care are much more likely to have mothers who were younger at first birth than children who received services from CFS, and than children neither in care nor who received services from CFS (see Figure 3.17). There were 40.9% of children in care with a mother who was 17 or younger at her first birth, compared to 31.5% of children who received services from CFS, and 6.8% of children neither in care nor who received services from CFS. Only 7.2% of children in care had a mother whose first birth was at 25 years old or older, compared to 52.1% of the children who were neither in care nor CFS.

²³ The time period used for the general population was 2012.



Figure 3.17: Percentage of Children between 2009/10 and 2011/12, by Mother's Age at First Birth and In-Care Category

Income Quintile

For this analysis we placed children in one of 11 rural and urban income quintiles—five rural income quintiles, five urban income quintiles, and one category for children whose income quintile was unknown—which reflect the area-level average household income. Income quintiles are created separately for rural and urban populations, and divide each population into five groups such that approximately 20% of the population is in each group. The largest percent of children in care could not be placed in an income quintile (25.4%; see Figure 3.18), because their home address was listed as a Child and Family Services agency. For those who could be placed in an income quintile, we found that children in care and children who received services from CFS were more likely to come from U1 and R1, the lowest-income urban and rural areas. The proportions were 25.7% and 15.1% for children ever in care and 25.9% and 16.2% for children who received services from CFS, respectively. Very few children in care came from the highest-income areas (0.96% from U5 and 1.6% from R5).



Figure 3.18: Percentage of Children in Care by Income Quintile and In-Care Category Area-level average Household Income of Family as of March 31, 2012

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Region

Figure 3.19 shows the distribution of the three groups of children by regional health authority (RHA). As with the income quintiles, 25.3% of the children in care could not be placed in a region because their postal code was listed as a Child and Family Services agency. The largest percent of children in all three groups were from Winnipeg (40.1%, 52.3%, and 50.7%), which is not surprising given that Winnipeg is the largest region.

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For children born between January 1, 1991 and March 31, 2012 we were able to look at birth mother's use of substances—e.g., alcohol, illegal drugs—during pregnancy, taken from the hospital obstetric record, physician visit records, or the BabyFirst or Families First newborn screen. We know that substance use during pregnancy is likely underreported in these data sources. Figure 3.20 shows that 13.2% of the children in care had a mother who used substances during pregnancy, compared to 4.8% for the children who were not in care but who received services from CFS, and 1.6% for the children who were neither in care nor received services from CFS.

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Figure 3.20: Percentage of Children with Prenatal Substance Exposure, by In-Care Category

Ever Received CFS

Never in Care/Never Received CFS

Ever in Care

Developmental disability was defined using a combination of hospital discharge records, physician visits, clinical diagnostic information, and information on receipt of special education services (exact codes used can be found in Appendix Table 1.3). Children's records were searched back to their birth to identify developmental disability.^{24,25} Figure 3.21 shows that children in care were much more likely to have a developmental disability (11.0%) than children not in care but whose families were receiving services from CFS (3.7%), who had, in turn, a higher percent of developmental disabilities than children neither in care nor receiving services from CFS (1.5%).

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²⁴ Note: The FASD dataset held in the MCHP Repository was available from 1999.

²⁵ Note: The Education dataset held in the MCHP Repository was available from 1995/96.

Mental disorder was defined using a combination of hospital, physician visit, and prescription medication records. Records were searched back to the child's birth.²⁶ The mental disorders that were included were Attention Deficit Hyperactivity Disorder (ADHD), conduct disorder, mood and anxiety disorder, schizophrenia, and substance use. Children in care were much more likely to have a mental disorder than the other two groups: Figure 3.22 shows that 32.0% of children in care had a mental disorder, compared to 19.1% of children who received services from CFS, and 7.7% of children neither in care nor who received services from CFS.

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²⁶ Prescription medication records were available back to 1995.

Income assistance is a program of financial assistance for people who need help to meet basic personal and family needs. As such, it is a measure of poverty. Family receipt of income assistance is associated with poorer educational outcomes (Brownell et al., 2010). Children were classified as being in a family receiving income assistance for one month or more at any time from their birth or from 1995.²⁷ Figure 3.23 shows that a high percentage of children in care (69.0%)²⁸ and children who received services from CFS (67.5%) are from families who have received income assistance. The percent for children neither in care nor receiving CFS was 12.0%.

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²⁷ Income assistance data held in the Repository starts in 1995.

²⁸ This percent may actually undercount family receipt of income assistance because Repository data only include those receiving provincial income assistance, not Federal income assistance received by families living in First Nations communities.

Size for gestational age is a measure of fetal growth. Being small for gestational age can be an indication of inter-uterine growth restriction, and can be associated with learning difficulties (Heaman et al., 2012). Figure 3.24 shows that the percentage of children born small for gestational age was highest for the children in care (11.0%), next highest for the children who received services from CFS (8.8%), and lowest for the children neither in care nor who received services from CFS (7.6%).

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Summary

A substantial proportion (one third) of children in care in Manitoba first entered into care when they were infants, and many of these children spent much of their childhood in care. The majority of children in care were Indigenous, and Indigenous populations in Manitoba had a ten-fold risk of entering care compared to non-Indigenous children. Compared to children not in care, children in care were more likely to have characteristics associated with poor educational outcomes, such as developmental disabilities, mental disorders, and low SES.

CHAPTER 4: EDUCATIONAL OUTCOMES FOR CHILDREN IN CARE

As discussed in Chapter 1, there is evidence from several countries that children in care are more likely to experience poorer educational outcomes than children in the general population. The goal of this chapter is to describe the educational outcomes for children in care in Manitoba. The outcomes examined were: the Early Development Instrument (EDI), grade repetition, grade 3 reading assessment, grade 3 numeracy assessment, grade 7 mathematics assessment, grade 7 student engagement assessment, grade 8 reading and writing assessment, number of credits earned in grade 9, grade 12 language arts standards test, grade 12 mathematics standards test, and high school completion. Further detail on the educational outcomes examined in the chapter can be found in Brownell et al. (2012) and at the Manitoba Education and Advanced Learning website (http://www.edu.gov.mb.ca/k12/assess/index.html). For these measures, we compared outcomes for three groups of children, who were:

- 1. ever in care up to the time of the assessment, including those currently in care or previously in care ("ever in care");
- 2. never in care up to the time of assessment, but whose families had ever, during the child's lifetime and up to the time of the assessment, received protection or support services from Child and Family Services ("ever received CFS"); and
- 3. never in care and never received services from CFS ("never in care/CFS").

The analyses presented in this chapter are "crude" comparisons, which means they have not been adjusted for factors such as SES or the presence of developmental disabilities, or other factors related to educational outcomes that may differ across the three groups of children. The results of analyses that adjust for differences across the three groups²⁹ are given in Appendix 2.

It is important to note that the education data reported to Manitoba Education and Advanced Learning may not be complete for children attending First Nations schools. Some First Nations schools do not participate in the assessments described in this chapter. Additionally, some First Nations schools do not submit information on enrolment, which is necessary to calculate grade repetition and high school completion.

For all of the education measures except grade repetition, grade 12 standards tests, and high school completion, we conducted the analyses two ways: first, examining all children enrolled in the target grade for each measure, for whom we had information on the measure (e.g., enrolled in grade 7 for the grade 7 numeracy assessment); and second, examining all children in a particular birth cohort who were expected to have the measure (e.g., all children born in 2001, who would be expected to be in grade 3 in the 2009/10 school year and therefore have a reading assessment that year). Results for this latter set of analyses, referred to as the cohort approach, showed similar patterns to the results presented in this chapter, and are given in Appendix 2. For grade repetition, grade 12 standards tests, and high school completion, only the cohort approach was used, as this is the standard approach used for these measures at MCHP.

²⁹ The analyses adjusting for differences across the three groups of children were adjusted by the following factors: area-level SES of student; area-level SES of school; child age; size for gestational age; mother's age at first birth; sex of child; urban or rural school; receipt of income assistance; developmental disability; and mental disorder.

Early Development Instrument (EDI)

The EDI is a population-based measure of developmental health at the point when a child is transitioning into school (Janus & Offord, 2007). It is an assessment of readiness for school learning in five domains: physical health and well-being, social competence, emotional maturity, language and cognitive development, and communication skills and general knowledge. Kindergarten teachers complete the EDI for their students, generally in the second half of the kindergarten year (around March) so that they are familiar with the child's functioning in the five domains. Reports using the EDI (e.g., Santos et. al, 2012) often focus on identifying early developmental vulnerability, which is defined as scoring in the 10th percentile, based on national norms, on at least one of the five domains (Janus & Offord, 2007). This is generally referred to as being "not ready" for school. Within each of the five domains, the 10th percentile cut-off, again based on national norms, can also be used to identify children as not ready in that particular domain.

For this report we had four cycles of the EDI available for analyses: 2005/06, 2006/07, 2008/09 and 2010/11. There were 44,127 children enrolled in kindergarten during these years; of these, 38,402 (87.0%) had valid EDI scores.³⁰

For this analysis, we looked at the percentage of children who were not ready in one or more domains (Figure 4.1) and not ready in two or more domains (Figure 4.2). In these figures, higher percentages represent poorer outcomes. The proportions of children deemed not ready in one or more domains were 53.1% who were ever in care, 43.5% who were never in care, but whose families had ever received services from CFS, and 23.8% who were never in care or who received services from CFS. The proportions of children deemed not ready in two or more domains were 36.3% who were ever in care, 26.1% who were never in care, but whose family received services from CFS, and 12.0% who were never in care or who received services from CFS. Previous work in Manitoba has shown that close to 30% of children who are not ready in one or more domain on the EDI will continue to have difficulties in school in grade 3. When children are not ready on two or more domains, over 40% will continue to have difficulties in grade 3 (Brownell et al., 2012).

³⁰ For the "not ready in one or more domain", if a child had missing values in all five domains, then s/he was considered to not have a valid EDI score; for the "not ready in two or more domains", if a child reported missing values in at least four domains, then s/ he was considered to not have a valid EDI score. The EDI is collected in all public school divisions in Manitoba; children attending non-funded independent schools would comprise part of the 13.0% of kindergarten children without valid EDI scores.









We also looked at each of the five domains separately and found similar results: children who had ever been in care being more vulnerable on each of the domains than children who received services from CFS, who were, in turn, more vulnerable than children never in care or who never received services from CFS (see Figure 4.3).

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Figure 4.3: Percentage of Students Not Ready for School, by In-Care Category

Kindergarten Students with EDI Assessments who are Not Ready in Each of the 5 Domains,

Grade Repetition

Grade repetition is defined as a student having been enrolled in the same grade for two or more consecutive years. For this measure, we identified students who had repeated at least one grade sometime between kindergarten and grade 8. Data on enrolment from 1997/98 through 2011/12 were used for this analysis, which included a total of 313,114 children.

For this measure, higher percentages represent poorer outcomes (i.e., more students having to repeat a grade). Figure 4.4 shows that the children ever in care had the highest rate of grade repetition, at 15.5%. For children who received services from CFS but never in care the proportion was 8.8%, and for children who were never in care or received services from CFS, 3.1%.



Figure 4.4: Percentage of Students Repeating a Grade, by In-Care Category

Grade 3 Assessment in Reading

Early in the school year, teachers in Manitoba assess grade 3 students on three reading competencies: 1) reflects on and sets reading goals; 2) uses strategies during reading to make sense of texts; and 3) demonstrates comprehension. Students are categorized into one of the four following levels of achievement for each competency: 1) meeting expectations; 2) approaching expectations; 3) needs ongoing help; and 4) out of range.³¹ For this analysis, we combined all three competencies and looked at the percent of students who were meeting or approaching expectations in all three competencies. Grade 3 assessment data from 2009/10 through 2011/12 were examined. There were 32,906 children enrolled in grade 3 during these years. Of these, 31,404 (95.4%) had grade 3 assessment information.

For this measure, higher percentages represent better outcomes (i.e., more students meeting or approaching expectations for grade 3). Figure 4.5 shows that the children ever in care had the lowest proportion of students meeting or approaching expectations on all three competencies, at 57.3%. For children who received services from CFS (but never in care) the proportion was 65.4%, whereas 85.5% of children who were never in care or received services from CFS were meeting or approaching expectations for grade 3 reading.

³¹ Out of range is used to describe students working well below their grade due to learning disabilities or their need for new language learning.





Students with Reading Assessments who were Meeting or Approaching Expectations in all 3 Competencies, 2009/10 – 2011/12

Grade 3 Assessment in Numeracy

Teachers in Manitoba also assess grade 3 students on four numeracy competencies early in the school year: 1) predicts an element in a repeating pattern; 2) understands that the equal symbol represents an equality of the terms found on either side of the symbol; 3) understands that a given whole number may be represented in a variety of ways; and 4) uses various mental mathematic strategies to determine answers to addition and subtraction questions up to the number 18. As with the grade 3 reading assessment, for the numeracy assessment students are categorized into one of four levels of achievement for each competency: 1) meeting expectations; 2) approaching expectations; 3) needs ongoing help; and 4) out of range.³² For this analysis, we combined all four competencies and looked at the percentage of students who were meeting or approaching expectations in all four. Grade 3 assessment data from 2009/10 through 2011/12 were examined. There were 32,906 children enrolled in grade 3 during these years; of these, 31,404 (95.4%) had grade 3 assessment information.

For this measure, higher percentages represent better outcomes (i.e., more students meeting or approaching expectations for grade). Figure 4.6 shows that the children who were ever in care had the lowest proportion of students meeting or approaching expectations on all four competencies, at 49.0%. For children who received services from CFS (but never in care) the proportion was 60.2%, whereas 79.6% of children who were never in care or received services from CFS were meeting or approaching expectations for grade 3 numeracy.

³² Out of range is used to describe students working well below their grade due to learning disabilities or their need for new language learning.





Grade 7 Assessment in Mathematics

Halfway through the school year, teachers in Manitoba assess grade 7 students on five mathematic competencies: 1) orders fractions; 2) orders decimal numbers; 3) understands that a given number may be represented in a variety of ways; 4) uses number patterns to solve mathematical problems; and 5) uses a variety of strategies to calculate and explain a mental mathematics problem. Students are categorized into one of the four following levels of achievement for each competency: 1) meeting expectations; 2) approaching expectations; 3) not meeting expectations; and 4) out of range.³³ For this analysis, we combined all five competencies and looked at the percentage of students who were meeting or approaching expectations in all five competencies. Grade 7 assessment data from 2007/08 through 2011/12 were examined. There were 57,295 students enrolled in grade 7 during these years; of these, 55,290 (96.5%) had grade 7 assessment information.

For this measure, higher percentages represent better outcomes (i.e., more students meeting or approaching expectations for grade). Figure 4.7 shows that the group of students who were ever in care had the lowest proportion of students meeting or approaching expectations on all five competencies, at 38.2%. For students who ever received services from CFS (but never in care) the proportion was 56.3%, whereas 76.5% of students who were never in care or ever received services from CFS were meeting or approaching expectations for grade 7 mathematics.

³³ Out of range is used to describe students working well below their grade due to learning disabilities or their need for new language learning.





Grade 7 Student Engagement

Halfway through the school year, teachers in Manitoba assess grade 7 students on five measures of engagement.³⁴ 1) demonstrates an interest in his/her learning; 2) engages in self-assessment; 3) aware of learning goals as a unit of study and/or personal learning goals; 4) participates in lessons; and 5) accepts responsibility for assignments. Students are categorized into one of the five following levels of engagement for each measure: 1) established, which is for students who nearly always demonstrate the described behaviour; 2) developing, which is for students who frequently demonstrate the described behaviour; 3) emerging, which is for students who only occasionally demonstrate the described behaviour; 4) inconsistent, which is for students who demonstrate the described behaviour in some settings but not all; and 5) out of scope, for instances where the student has a profound mental health concern, cognitive disability, or other condition so severe that the engagement behaviour being measured is not applicable to the student. For this analysis, we combined all five measures of engagement and looked at the percent of students who had established or were developing engagement on all five measures. Grade 7 assessment data from 2007/08 through 2011/12 were examined. There were 57,295 students enrolled in grade 7 during these years. Of these, 55,290 (96.5%) had grade 7 assessment information.

For this measure, higher percentages represent better outcomes (i.e., more students with established or developing engagement). Figure 4.8 shows that the group of students who were ever in care had the lowest proportion who had established or were developing engagement on all five measures, at 29.5%. For students who ever received services from CFS (but never in care) the proportion was 44.0%, whereas 68.2% of students who were never in care or ever received services from CFS had established or were developing engagement in grade 7.

³⁴ French Immersion students are assessed on an additional measure of engagement to do with use of French, and Français students are assessed on an additional two measures of engagement to do with language and culture. For the purposes of this report, only the first five measures of engagement are analyzed, so that all students were assessed on the same five measures.



Figure 4.8: Percentage of Students Competent in Grade 7 Engagement, by In-Care Category

Students with Engagement Assessments who were Established or Developing in all 5 Competencies, 2007/08 – 2011/12

Grade 8 Assessment in Reading and Writing

Halfway through the school year, teachers in Manitoba assess grade 8 students on six reading and writing competencies:³⁵ 1) understands key ideas and messages in a variety of texts; 2) interprets a variety of texts; 3) responds critically to a variety of texts; 4) generates, selects and organizes ideas to support the reader's understanding; 5) chooses language (word choices and sentence patterns) to make an impact on the reader; and 6) uses conventions (spelling, grammar, and/or punctuation) and resources to edit and proofread to make meaning clear. Students are categorized into one of the four following levels of achievement for each competency: 1) meeting expectations; 2) approaching expectations; 3) not meeting expectations; and 4) out of range.³⁶ For this analysis, we combined all six competencies and looked at the percent of students who were meeting or approaching expectations in all six competencies. Grade 8 assessment data from 2007/08 through 2011/12 were examined. There were 58,310 students enrolled in grade 8 during these years. Of these, 56,232 (96.4%) had grade 8 assessment information.

For this measure, higher percentages represent better outcomes (i.e., more students meeting or approaching expectations for grade). Figure 4.9 shows that the group of students who were ever in care had the lowest proportion meeting or approaching expectations on all six competencies, at 49.0%. For students who ever received services from CFS (but never in care) the proportion was 66.2%, whereas 84.9% of students who were never in care or ever received services from CFS were meeting or approaching expectations for grade 8 reading and writing.

³⁵ Students in French immersion are assessed in both French and English and therefore have two sets of scores. For this analysis we used the set of scores which were the highest; for the majority of students their scores were the same in both languages (Brownell et al., 2012).

³⁶ Out of range is used to describe students working well below their grade due to learning disabilities or their need for new language learning.





Students with Reading and Writing Assessments who were Meeting or Approaching Expectations in all 6 Competencies, 2007/08 – 2011/12

Earned Eight or More Credits in Grade 9

The completion of eight or more credits in a student's first year of grade 9 (the required number of credits to complete grade 9) is a predictor of high school completion (Brownell et al., 2012; King, Warren, Boyer, Chin, & Social Program Evaluation Group, 2007). We counted credits earned for students enrolled in grade 9 in the years 1995/96 through 2011/12. A total of 244,131 grade 9 students were included in this analysis.

For this measure, higher percentages represent better outcomes. Figure 4.10 shows that the group of students who were ever in care had the lowest proportion of grade 9 students who earned eight or more credits, at 20.6%. For students who ever received services from CFS (but never in care) the proportion was 43.3%, whereas 68.0% of grade 9 students who were never in care or ever received services from CFS earned eight or more credits.



Figure 4.10: Percentage of Students With 8+ Credits in Grade 9, by In-Care Category

Grade 12 Standards Tests in Language Arts and Mathematics

Students in Manitoba have been required to write standards provincial examinations in language arts (LA) and mathematics since 1993. Standards tests are administered toward the end of the academic year or semester (Manitoba Education and Advanced Learning, 2014). The current standards tests are curriculum-based, account for 30% of students' final course mark, and are mandatory for all students seeking credit in the required course. Instead of looking only at the performance of those students present to write these tests, we selected 10 birth cohorts (one cohort for each of the years 1984–1993) of children born in Manitoba and included those individuals who were still living in Manitoba at the age of 18 in the school year that they should have written these standards tests if they had progressed through the school system in the expected fashion. This method has been used in previous reports (Brownell et al., 2004; Brownell et al., 2008; Brownell et al., 2012). In this way, we were able to measure not only the percentage of the cohort that passed or failed these standards tests "on time," but also the percentage who were absent or did not complete the test, who were in grade 11 or lower (i.e., repeated at least one grade), and who had withdrawn from school. Grade 12 standards test results for both subjects included students born in 1984 through 1993 and who should have been in grade 12 in school years 2001/02 through 2010/11. This cohort analysis included 163,214 individuals.

For this measure, higher percentages represent better outcomes (i.e., more students passing the test on time). Figure 4.11 shows that the group of students who were ever in care had the lowest proportion passing the grade 12 LA test on time, at 10.0%. For students who ever received services from CFS (but never in care) the proportion was 36.2%, and 66.1% of youths who were never in care or ever received services from CFS passed the grade 12 LA standards test on time.





Figure 4.12 shows that the group of students who were ever in care had the lowest proportion passing the grade 12 mathematics test on time, at 8.3%. For students who ever received services from CFS (but never in care) the proportion was 30.4%, and 56.4% of youths who were never in care or ever received services from CFS passed the grade 12 mathematics standards test on time. The results of the LA and mathematics tests analysis disaggregated by year and by other outcomes besides passing on time—e.g., percentage in grade 11 or lower, percentage of students withdrawn—are given in Appendix Figures 2.10 – 2.12.



Figure 4.12: Percentage of Teens Passing Grade 12 Mathematics Standards Test, by In-Care Category Birth Cohorts 1984 – 1993 Passing Test in Expected Year (2001/02 – 2010/11)

High School Completion

High school completion (graduation) is an important milestone in an individual's life that leads to further opportunities such as post-secondary education and training, or employment. To calculate high school completion we started by selecting all children who were born after 1989 and before 1993 (so that they were "high school age" during the period for which we had education data), and had at least one school enrolment record. Children whose most recent enrolment record indicated that they attended a First Nations school or a non-funded independent school were excluded so that they would not automatically be considered as "not completing high school" (many of these schools do not submit complete information on all students). Children who were not continuous residents of Manitoba during the years they were expected to be in high school (14-18 years of age) were also excluded, so that students who moved out of the province were not counted as not completing high school. To identify graduates, we used the "year-end status" variable from the education enrolment data. Before 2009/10, some schools did not use this variable consistently, so for those without a year-end status variable indicating graduation, we counted their total credits earned in high school, and if this met with the Manitoba Education and Advanced Learning criteria for graduation³⁷ we considered the students as graduates. To ensure we were capturing all graduates, for those students not identified as graduates through the year-end status variable or total number of high school credits, we also counted any students who had completed six or more grade 12 credits as graduates.³⁸ This method will count students who take more than the expected four years to complete high school as graduates. However, we did not have access to adult education records, so could not count those individuals who may have returned to complete high school many years later as graduates.

The number of credits required for high school completion has changed over time. Up to 2007/08, 28 credits were required; in 2008/09, 29 credits were required; and, since 2009/10, 30 credits have been required (Manitoba Education, 2014).

³⁸ Including as "graduates" those students who did not have the required number of total high school credits, but did have the required number of grade 12 credits may inflate the graduation rates slightly; when we conducted the analyses without including this criterion, graduation rates for all three groups were 2–3% lower.

For this measure, higher percentages represent better outcomes (i.e., more students completing high school). Figure 4.13 shows that the group of students who were ever in care had the lowest proportion of high school completion, at 33.4%. For students who ever received services from CFS (but never in care) the proportion was 66.8%, whereas 89.3% of students who were never in care or ever received services from CFS completed high school.

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Summary

This chapter demonstrates that, across a wide range of measures and ages, children in care tend to do worse in school than children not in care. For all outcomes examined in this chapter, we ran regression models that adjusted for differences between the three groups (e.g., SES, developmental disability, mental disorder). Appendix Tables 2.1 – 2.6 indicate that, even when differences between the groups are adjusted for, children who were ever in care still perform more poorly than the other two groups of children. The only exception we found was for grade 3 reading, where children in care perform more poorly than children who were never in care and had never received services from CFS, but no worse than children who had received services from CFS.
CHAPTER 5: FACTORS ASSOCIATED WITH EDUCATIONAL OUTCOMES FOR CHILDREN IN CARE

Chapter 4 demonstrated that, as a group, children who were ever in care in Manitoba perform worse on a range of educational outcomes compared to children who were never in care. Despite this group's overall poorer educational outcomes, we know that some children in care do well in school. For example, even though the percentage of children ever in care who are meeting or approaching expectations for grade 3 reading is much lower than children who were never in care (Figure 4.5), over half the children who were ever in care *were* meeting expectations. Determining what contributes to the educational success of these children may help point to strategies and programs that could improve educational outcomes for the group as a whole. The main objective of this chapter was to attempt to identify factors that may be associated with positive educational outcomes for children in care in Manitoba, using characteristics recorded in administrative records held in the MCHP Repository.

For some of the key educational outcomes examined in Chapter 4, representing a range of ages and grade levels, we used statistical modeling to identify factors associated with educational outcomes for children in care. Rather than comparing educational outcomes for children in care to children not in care, as in Chapter 4, in this chapter we compare children in care who have positive outcomes to children in care who did not have these positive outcomes. The educational outcomes that were examined were: Early Development Instrument (EDI); grade 3 reading assessment; grade 3 numeracy assessment; grade 7 mathematics assessment; grade 7 student engagement; grade 8 reading and writing assessment; earning eight or more credits in grade 9; and high school completion. Conducted separately for each outcome, the statistical analyses we used allowed us to examine a number of different factors at the same time, such as developmental disabilities, number of placements, and Indigenous group. Many of the factors we examined were the characteristics of children in care explored in Chapter 3. For each of the outcomes examined, we looked at the following factors to determine whether they were related to how the children in care performed in school (recall that CFSIS terms are defined in Table 3.1):³⁹

- average SES of the area the child is from;
- average SES of the area of the school the child attends;
- age of the child (in months) at the time of the educational assessment being examined;
- Indigenous group of the child;
- legal status of the child within the CFS system;
- whether the most recent placement was "kinship" or not⁴⁰;
- reason for the child being in care;
- age that the child first entered into care;
- whether the child was born small for gestational age;
- the age of mother at the birth of her first child (not included for the analyses of number of credits earned in grade 9 or high school completion because data was unavailable far enough back in time);
- sex of the child;
- school region (urban or rural)⁴¹;
- whether the child's family had ever received income assistance⁴²;
- diagnosis of a developmental disability;
- diagnosis of a mental disorder;

³⁹ Multi-collinearity was checked using the Variance Inflation Factor.

⁴⁰ Note that CFSIS does not record "kinship care" as a category of placement but this was determined by using a combination of information on placement category and type; please see footnote 11 in Chapter 3.

⁴¹ Urban is defined as Winnipeg and Brandon; rural is all other regions of the province.

⁴² The information on income assistance in the Repository is only available for those receiving provincial assistance. Information on those families receiving assistance through federal programs (i.e., those families in First Nations communities) is not available in the Repository.

- maternal substance use during pregnancy (available only for EDI, and grade 7 outcomes);
- substantiated abuse of the child;
- currently versus previously in care at time of assessment;
- total number of in care episodes experienced by the child⁴³;
- total number of placements experienced by the child;
- the length of time the child had spent in care⁴⁴; and
- proportion of days absent from school (examined for EDI only).

For the EDI we were able to look at attendance as a factor that may be associated with educational outcomes. Attendance data were not available for other outcomes because they are not routinely reported to Manitoba Education and Advanced Learning.

For all educational outcomes, we initially nested our regression analyses by school using multilevel modeling. This allowed us to look at the characteristics of children within and between schools to determine whether the school attended by a child in care made a difference to his or her outcomes. This analysis was done without revealing the identities of specific schools. When we nested by school, which was a way of grouping children within schools, we found that there was little variation in outcomes across schools. This suggests that there is no statistically significant effect of school on outcomes; in other words, the educational outcomes for children in care were not influenced by the school they attended. As a result, we decided that a generalized linear model including a generalized estimating equation (GEE) that accounts for correlated data was a better approach to model our educational outcomes than the multilevel modeling.

For each of the outcomes examined, regression models were analyzed for all children in care and then separate models were analyzed by Indigenous group (First Nations (Status, non-Status), Metis, not determined, and non-Indigenous)⁴⁵ to determine whether different factors were associated with educational outcomes for these different groups of children. Because for the most part model results were very similar,⁴⁶ only the models for all children in care are described in this chapter. Results from all of the separate models are given in Appendix 3.

Preliminary analyses demonstrated that the variable "developmental disabilities" was the strongest predictor of poor performance on outcomes; that is, children in care who had developmental disabilities performed worse on all measures than children in care who did not have developmental disabilities. We analyzed a set of models that excluded children with developmental disabilities, to determine whether different factors contributed to educational outcomes for children without developmental disabilities. For the most part, the results were similar whether we excluded or included children with development disabilities, so only the results from models that included all children are reported here. Results for all models are given in Appendix 3.

⁴³ Counted since birth or from earliest record in CFSIS (see Chapter 2).

⁴⁴ Counted since birth or from earliest record in CFSIS (see Chapter 2).

⁴⁵ The number of Inuit children in each of the analyses was too small to provide valid estimates; these children were therefore excluded from analyses.

⁴⁶ This was particularly true when comparing the models for all children to the models for First Nations children, likely because First Nations children compose the majority of children in care. The models with only Metis children or only non-Indigenous children tended to have fewer variables that were statistically significantly associated with the outcomes, likely due to the smaller number of children included in the models.

Reading the Tables

For each educational outcome described below, the results of the regression models are shown in a table. These results are for children in care only. The regression models determine which variables are statistically significantly related to the outcome. The direction of the association—whether the variable was statistically significantly associated with an increase or decrease in the outcome—is shown using arrows in the table. Arrows pointing up indicate a variable level that was associated with an increase in the outcome; arrows pointing down indicate a variable level that was associated with a decrease in the outcome; and cells left blank indicate that variable level was not statistically significantly associated with the outcome. We have not provided specific regression estimates in these tables because not all of our models obtained a "good fit." This means that, although we can be confident we have accurately identified statistically significant associations and the direction of those associations, we cannot be confident that the actual estimated values are precise. Levels of statistical significance are also indicated in the tables. Statistical significance was set at a p value of less than 0.05.

Consistent Findings Across Outcomes

There were three variables that were consistently associated with all of the educational outcomes: developmental disabilities, mental disorders, and Indigenous group. Children in care with developmental disabilities tended to have poorer educational outcomes. This is not surprising given that many of the conditions included in our definition of developmental disabilities—for example, Fetal Alcohol Spectrum Disorder, Autism Spectrum Disorder, Down Syndrome—are associated with learning difficulties. Children in care with mental disorders also tended to have poorer educational outcomes. As with developmental disabilities, many mental disorders—for example, attention deficit/hyperactivity disorder and mood and anxiety disorders—can also be associated with learning difficulties (Birchwood & Daley, 2012; Loe & Feldman, 2007). For most of the outcomes examined, non-Indigenous children in care tended to have better educational outcomes than First Nations children in care. And for four of the eight outcomes, Metis children in care had better educational outcomes than First Nations children in care. These results are similar to other findings on children in the general population, which find that Metis (Martens et al., 2010) and First Nations (Bougie, 2009; Campaign 2000, 2014) children tend to do more poorly in school than non-Indigenous children. These inequities in educational outcomes by Indigenous group are a reflection of the social inequities confronting Indigenous groups, including inequities in income, housing, social services, and education services.⁴⁷ Compounding these inequities are the impacts of cultural devaluation, racial discrimination, and the legacy of the residential school system (Bougie, 2009; Richards & Scott, 2009). These influences should be understood when reviewing the regression results below.

⁴⁷ For example, the Assembly of First Nations reported that in 2010/11, the average funding per student for First Nations schools in Canada was \$7,101, one-third lower than the \$10,478 per student in provincial schools (Chiefs Assembly on Education, 2012).

Early Development Instrument (EDI)

Table 5.1 shows the results for the EDI. Since the outcome for the EDI is "not ready" for school on one or more domains, negative estimates, which are indicated by downward arrows, mean fewer children are not ready or vulnerable (i.e., a positive outcome); and positive estimates (the upward arrows) mean that more children are not ready or vulnerable (i.e., a negative outcome). As shown in the table, the statistically significant factors associated with a negative outcome—that is, an increase in "not ready," indicated by upward arrows—are older age, being male, being in a family receiving income assistance, having a developmental disability, having a mental disorder, and days absent (each increase in days absent is associated with an increase in "not ready," indicated by a downward arrow—are being Metis (compared to First Nations) and having four to six placements (compared to seven or more).

The finding that older children are more likely to be "not ready" contradicts previous research, which found that younger age is generally associated with an increase in "not ready" (Santos et al., 2012). It may be the case that, because children in care are much more likely to repeat grades than children not in care (see Figure 4.4 in previous chapter), the association between older age and "not ready" in the current analysis is associated with being held back in kindergarten due to learning difficulties. As a group, boys are generally less ready for school learning than girls (Santos et al., 2012). The association with income assistance likely represents the association between poverty and being "not ready" for school learning (Santos et al., 2012). Seven or more care placements for children in kindergarten suggests substantial disruption, which would likely affect a child's readiness for school. With each increase in the percent of days absent, we found an increase in the number or proportion of children "not ready." Other research has shown that both children in care and children not in care do worse in school if they have a greater number of days absent from school (Kortenkamp & Ehrle, 2002; Scherr, 2007). The associations with developmental disabilities, mental disorders, and Indigenous group are discussed at the beginning of the chapter in the section "Consistent Findings Across Outcomes."

Table 5.1: Regression Analysis of Factors Associated with Kindergarten Students "Not Ready" in One or More EDI domains

2005/06, 2006/07, 2008/09, and 2010/11

Factors	Level	Direction of	Statistical
		Association	Significance
Area-level SES of School			
Child's Age (in Months)		•	**
Indigenous Group of Child	Not Determined		
Indigenous croup of ennu	Non-Indigenous		
	Metis	₩	**
	First Nations (non-Status) First Nations (Status) (REF)		
Child's Legal Status while in Care	Apprehension or PFFO		
	Other		
	Temporary Ward		
	Permanent Ward (REF)		
Kinship Placement	Yes		
	<u>No (REF)</u> Abandonment		
Reason for Being in Care	Conditions of parent(s)		
	Conditions of child		
	Conduct of parent(s)		
	Other		
Ago (in Veers) at Entry Into Care	1-2		
Age (in Years) at Entry into Care	3-4		
	≥5 <1 (DEE)		
Small for Gestational Age at Birth	Missing/No Category		
Small for destational Age at birth	Yes		
	<u>No (REF)</u>		
Mother's Age (in Years) at First Birth	12-17 >18 (RFF)		
Sex	Male	^	***
	Female (REF)		
Urban School	Yes No (REF)		
Family Receipt of Income Assistance	Yes	^	*
	No (REF)		***
Diagnosis of a Developmental Disability	No (REF)	т	
Diagnosis of a Mental Disorder	Yes	^	***
	No (REF)		
Maternal Substance Use During Pregnancy	No (REF)		
Substantiated Abuse of Child	Yes		
	No (REF)		
Care at Time of Assessment	Currently in care Previously in care (REE)		
Total Number of in Care Enisodes	1		
Total Number of in Care Episodes	2		
	5 4+ (RFF)		
Total Number of Placements Experienced	1-3	- -	
	4-6 7+ (PEE)	₩	*
Length of Time (in Vears) Child Spont in Care	<u>/ + (NEF)</u> <1		
congen of time (in rears) child spent in calle	1-2		
	3-4 5+ (REE)		
Proportion of Total Days Absent	Missina	^	**
	>0%-<10%	i i i i i i i i i i i i i i i i i i i	**
	10%-<20%		*** ***
	≥30%		***
	0% (BEE)	-	

↑ = associated with an increase in the percent of children not ready in one or more EDI domains

♥ = associated with a **decrease** in the percent of children not ready in one or more EDI domains

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

PFFO = Petition Filed for Further Order

Grade 3 Assessment in Reading

Table 5.2 shows the results for the grade 3 reading assessment. Since the outcome for this assessment is meeting or approaching expectations for grade in all three reading competencies, positive estimates, which are indicated by upward arrows, mean more children are meeting or approaching expectations; and negative estimates, which are indicated by downward arrows, mean fewer children are meeting or approaching expectations. As shown in the table, there were several factors associated with a decrease in children meeting or approaching expectations: having any reason for being in care other than the child's conduct; being small for gestational age; having a mother who was 12 to 17 years old at her first birth; being male; having a developmental disability; and having a mental disorder. Positive associations were shown for Indigenous group: non-Indigenous, Metis and non-status First Nations had better outcomes compared to First Nations children.

Being small for gestational age has been associated with learning challenges (Guellec et al., 2011; Kallankari, Kaukola, Olsén, Ojaniemi, & Hallman, 2014; O'Keeffe, O'Callaghan, Williams, Najman, & Bor, 2003; Pyhälä et al., 2011). Research shows that children born to mothers who are teens (12–17 years) at first birth tend to have poorer educational outcomes, and that this is likely at least partly related to poverty (Jutte et al., 2010). As a group, girls tend to have better reading performance than boys (Canadian Council on Learning, 2009; OECD, 2011). We were surprised to find that conduct of the child as the reason for entering care was associated with an increased likelihood of meeting or approaching expectations for grade 3 reading compared to other reasons for entering care. As a reason for entering care, conduct of child may suggest behavioural problems that could be expected to interfere with school learning. We were unable to determine from our data why we found this association. The associations with developmental disabilities, mental disorders, and Indigenous group are discussed at the beginning of the chapter in the section "Consistent Findings Across Outcomes."

Factors	Level	Direction of	Statistical
		Association	Significance
Area-level SES of Child			
Area-level SES of School			
Child's Age (in Months)	Net Determined		
Indigenous Group of Child	Not Determined		*
	Metic		***
	First Nations (non-Status)	↑	**
	First Nations (Status) (REF)		
Child's Legal Status while in Care	Apprehension or PFFO		
	Other		
	Temporary Ward		
	Permanent Ward (RFF)		
Kinshin Placement	Yes		
Kiisiip Hacement	No (REF)		
Reason for Being in Care	Abandonment	<u> </u>	***
5	Conditions of parent(s)	. ↓	***
	Conditions of child	¥.	*
	Conduct of parent(s)	•	***
	Other	•	***
Age (in Years) at Entry Into Care	⊥-4 ≥5		
	<1 (REF)		
Small for Gestational Age at Birth	Missing/No Category		
5	Yes		*
	No (REF)		
Mother's Age (in Years) at First Birth	12-17	•	*
	≥18 (KEF)		***
Sex	Female (RFF)	•	
Urban School	Yes		
orbail school	No (REF)		
Family Receipt of Income Assistance	Yes		
	No (REF)		
Diagnosis of a Developmental Disability	Yes	•	***
	No (REF)		***
Diagnosis of a Mental Disorder	Yes No (REE)	•	
Substantiated Abuse of Child	Yes		
Substantiated Abuse of Child	No (REF)		
Care at Time of Assessment	Currently in care		
	Previously in care (REF)		
Total Number of in Care Episodes	1		
	2		
	4+ (REF)		
Total Number of Placements Experienced	1-3		
Total Humber of Fracements Experienced	4-6		
	7+ (REF)		
Length of Time (in Years) Child Spent in Care	<1 1_2		
	3-4		
	5+ (RFF)		

Table 5.2: Regression Analysis of Factors Associated with Grade 3 Reading Assessment 2009/10 - 2011/12

↑ = associated with an **increase** in the percent of children meeting or approaching expectations for grade 3 reading

♥ = associated with a **decrease** in the percent of children meeting or approaching expectations for grade 3 reading

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

PFFO = Petition Filed for Further Order

Grade 3 Assessment in Numeracy

Table 5.3 shows the results for the grade 3 numeracy assessment. Since the outcome for this assessment is meeting or approaching expectations for grade in all four numeracy competencies, positive estimates, which are indicated by upward arrows, mean more children are meeting or approaching expectations; and negative estimates, which are indicated by downward arrows, mean fewer children are meeting or approaching expectations. As shown in the table, most of the variables associated with grade 3 numeracy performance are associated with a decrease in the number of children who are meeting or approaching expectations: being either a temporary ward or on a voluntary placement agreement compared to being a permanent ward;⁴⁸ having a developmental disability; and having a mental disorder. The non-Indigenous group had a greater proportion of children meeting or approaching expectations than the First Nations group.

It is difficult to determine from our data why being a temporary ward or having a voluntary placement agreement was associated with poorer outcomes than being a permanent ward. However, because this association was not found when we excluded children with developmental disabilities from the analysis (see Appendix 3), the finding likely pertains only to children with developmental disabilities. The associations between grade 3 numeracy and developmental disabilities, mental disorders, and Indigenous group are discussed at the beginning of the chapter in the section "Consistent Findings Across Outcomes."

⁴⁸ As shown in the appendix, when children with developmental disabilities were removed from the model, the association with legal status (e.g., temporary ward and voluntary placement agreement versus permanent ward) was no longer statistically significant.

P. dam.	Level	Direction of	Statistical
Factors	Level	Association	Significance
Area-level SES of Child			
Area-level SES of School			
Child's Age (in Months)			
Indigenous Group of Child	Not Determined		_
	Non-Indigenous	^	*
	Metis First Nations (pop_Status)		
	First Nations (Status) (REF)		
Childle Land Status while in Case	Apprehension or PEFO		
Child's Legal Status while in Care	Other		
	Temporary Ward	Ψ	*
	VPA	•	*
	Permanent Ward (REF)		
Kinship Placement	No (REE)		
Basson for Baing in Care	Abandonment		
Reason for Being in Care	Conditions of parent(s)		
	Conditions of child		
	Conduct of parent(s)		
	Other		
	Conduct of child (REF)		
Age (in Years) at Entry Into Care	1-4		
	≥5 1 (DEE)		
	<1 (KEF)		
Small for Gestational Age at Birth	Missing/No Category		
	No (RFF)		
Mother's Age (in Vears) at First Birth	12-17		
Mother's Age (in reals) at hist birth	≥18 (REF)		
Sex	Male		
	Female (REF)		
Urban School	Yes		
	No (REF)		
Family Receipt of Income Assistance	No (REE)		
Diagnosis of a Davidenmental Disphility	Yes	······································	***
Diagnosis of a Developmental Disability	No (REF)		
Diagnosis of a Mental Disorder	Yes	*	***
2.129.100.00 0.1 0.110.110.12.150.120.	No (REF)		
Substantiated Abuse of Child	Yes		
	No (REF)		
Care at Time of Assessment	Currently in care		
	Previously in care (REF)		
Total Number of in Care Episodes	2		
	3		
	4+ (REF)		
Total Number of Placements Experienced	1-3		
	4-6 7 (DEE)		
Length of Time (in View) Cliff Council of	/+ (KEF) ~1		
Length of Time (in Years) Child Spent in Care	1-2		
	3-4		
	5+ (REF)		

Table 5.3: Regression Analysis of Factors Associated with Grade 3 Numeracy Assessment 2009/10 - 2011/12

★ = associated with an **increase** in the percent of children meeting or approaching expectations for grade 3 numeracy

 Ψ = associated with a **decrease** in the percent of children meeting or approaching expectations for grade 3 numeracy

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

PFFO = Petition Filed for Further Order

Grade 7 Assessment in Mathematics

Table 5.4 shows the results for the grade 7 mathematics assessment. Since the outcome for this assessment is meeting or approaching expectations for grade level in all five mathematic competencies, positive estimates, which are indicated by upward arrows, mean more children are meeting or approaching expectations; and negative estimates, which are indicated by downward arrows, mean fewer children are meeting or approaching expectations for grade level in all five mathematic competencies, positive estimates, which are indicated by downward arrows, mean fewer children are meeting or approaching expectations. As shown in the table, most of the statistically significant associations were negative, which means that these factors were associated with a reduction in meeting or approaching expectations: older age; being a temporary ward or on a voluntary placement agreement compared to being a permanent ward; entering care at 10 years of age or older; having a developmental disability; and having a mental disorder. The non-Indigenous group had a greater proportion of children meeting or approaching expectations than the First Nations group.

Being older may be associated with being held back a year or more (which is not uncommon among children in care, as shown in Figure 4.4), and children held back a grade may experience more difficulties in school. Being a temporary ward or having a voluntary placement agreement was associated with poorer outcomes than being a permanent ward, perhaps because these more temporary care arrangements are associated with more disruptions. Entering care at an older age (10+ years) was associated with poorer outcomes. This could be because the assessment occurred closer to the disruption associated with going into care, and that these children were still adjusting to being in care. The associations with developmental disabilities, mental disorders, and Indigenous group are discussed at the beginning of this chapter in the section "Consistent Findings Across Outcomes."

Factors	Level	Direction of Association	Statistical Significance
Area-level SES of Child		Association	Significance
Area-level SES of School			
Child's Age (in Months)		↓	***
Indigenous Group of Child	Not Determined		
	Non-Indigenous	↑	***
	Metis		
	First Nations (non-Status)		
	First Nations (Status) (REF)		
Child's Legal Status while in Care	Apprenension or PFFO		
	Temporary Ward		*
	VPA	Ψ.	*
	Permanent Ward (REF)		
Kinship Placement	Yes		
	No (REF)		
Reason for Being in Care	Abandonment		
	Conditions of child		
	Conduct of parent(s)		
	Other		
	Conduct of child (REF)		
Age (in Years) at Entry Into Care	1-4		
rige (in really) at Entry into care	5-9		
	≥10	•	*
	<1 (REF)		
Small for Gestational Age at Birth	Missing/No Category		
	No (REE)		
Mather's Age (in Veers) at First Dirth	12-17		
Mother's Age (in Years) at First Birth	≥ 18 (REF)		
Sex	Male		
	Female (REF)		
Urban School	Yes		
	No (REF)		
Family Receipt of Income Assistance	Yes		
	NO (REF)		***
Diagnosis of a Developmental Disability	No (REF)	•	
Diagnosis of a Montal Disordor	Yes	¥	***
Diagnosis of a Merical Disorder	No (REF)		
Maternal Substance Use During Pregnancy	Yes		
	No (REF)		
Substantiated Abuse of Child	Yes		
	No (REF)		
Care at Time of Assessment	Currently in care		
Total Number of in Care Enicodes		··· † ·····	
Total Number of In Care Episodes	2		
	3		
	4+ (REF)		
Total Number of Placements Experienced	1-3		
	4-0 7+ (REE)		
Longth of Time (in Vears) Child Spont in Care	/ T (NEF) <1		
Length of time (in rears) Child Spent in Care	1-2		
	3-4		
	5+ (RFF)		

Table 5.4: Regression Analysis of Factors Associated with Grade 7 Mathematics Assessment 2007/08 - 2011/12

 \uparrow = associated with an **increase** in the percent of children meeting or approaching expectations for grade 7 mathematics

 Ψ = associated with a **decrease** in the percent of children meeting or approaching expectations for grade 7 mathematics

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

PFFO = Petition Filed for Further Order

Grade 7 Student Engagement

Table 5.5 shows the results for the grade 7 student engagement assessment. Since the outcome for this assessment is established or developing engagement for grade in all five competencies, positive estimates, which are indicated by upward arrows, mean more children are engaged or developing engagement; and negative estimates, which are indicated by downward arrows, mean fewer children are engaged or developing engagement. As shown in the table, the factors associated with a reduction in established or developing engagement are: having higher area-level SES for the school; older age; being male; having a developmental disability; and having a mental disorder. Factors associated with an increase in established or developing engagement are: higher area-level SES for the student and being in the non-Indigenous group or the group for which Indigenous status was not determined.

Being older is once again likely associated with children who have been held back a year or more in school (which is not uncommon among children in care, see Figure 4.4). Male students often face more challenges in school and this may result in them feeling less engaged in their schooling. Students with higher area-level SES were more likely to be engaged, which confirms a well-established association between SES and education. However, higher area-level SES of the school was associated with decreased engagement, or in other words, lower SES of school was associated with an increased likelihood of student engagement. This finding is contrary to our other findings and to the literature. Whether this is because of additional programs and strategies for student and family engagement in low SES areas is a question that would require further exploration. The associations with developmental disabilities, mental disorders, and Indigenous group are discussed at the beginning of this chapter in the section "Consistent Findings Across Outcomes."

_		Direction of	Statistical
Factors	Level	Association	Significance
Area-level SES of Child		^	**
Area-level SES of School		. <u> </u>	*
Child's Age (in Months)			***
Indigenous Group of Child	Not Determined	^	*
	Non-Indigenous Motic	Ť	***
	First Nations (non-Status)		
	First Nations (Status) (REF)		
Child's Legal Status while in Care	Apprehension or PFFO		
child's Legal Status while in care	Other		
	Temporary Ward		
	VPA		
	Voc		
Kinship Placement	No (RFF)		
Reason for Being in Care	Abandonment		
Reason for being in care	Conditions of parent(s)		
	Conditions of child		
	Conduct of parent(s)		
	Other		
Age (in Years) at Entry Into Care	5-9		
	≥10		
	<1 (REF)		
Small for Gestational Age at Birth	Missing/No Category		
	Yes		
NAsthends Assa (in Versus) at First Digth	12-17		
Mother's Age (in Years) at First birth	≥18 (REF)		
Sex	Male	¥	***
	Female (REF)		
Urban School	Yes		
	No (REF)		
Family Receipt of Income Assistance	No (RFF)		
Diagnosis of a Developmental Disability	Yes	¥	**
Diagnosis of a Developmental Disability	No (REF)		
Diagnosis of a Mental Disorder	Yes	¥	***
~	No (REF)		
Maternal Substance Use During Pregnancy	Yes		
	No (REF)		
Substantiated Abuse of Child	Yes		
Core at Time of Accessment	Currently in care		
Care at time of Assessment	Previously in care (REF)		
Total Number of in Care Episodes	1		
	2		
	3 4 - (DEE)		
Total Number of Discoments Experienced	4+ (KEF) 1-3		
Total Number of Flacements experienced	4-6		
	7+ (REF)		
Length of Time (in Years) Child Spent in Care	<1		
	3-4		
	5+ (REF)		

Table 5.5: Regression Analysis of Factors Associated with Grade 7 Student Engagement Assessment 2007/08 - 2011/12

↑ = associated with an increase in the percent of children meeting or approaching expectations for grade 7 engagement

↓ = associated with a **decrease** in the percent of children meeting or approaching expectations for grade 7 engagement

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

PFFO = Petition Filed for Further Order

Grade 8 Assessment in Reading and Writing

Table 5.6 shows the results for the grade 8 reading and writing assessment. Since the outcome for this assessment is meeting or approaching expectations for grade 8 in all six reading and writing competencies, positive estimates, which are indicated by upward arrows, mean more children are meeting or approaching expectations; and negative estimates, which are indicated by downward arrows, mean fewer children are meeting or approaching expectations are: older age; being male; having a developmental disability; and having a mental disorder. Factors associated with increases in meeting or approaching expectations are: being in the non-Indigenous group or the group for which Indigenous status was not determined (vs. First Nations); and having one or two episodes of care (vs. four or more).

Similar to other outcomes, being older was associated with poorer results, perhaps because older youths in grade 8 are likely those who have been held back a grade at some point in their schooling. Also similar to other outcomes, males were less likely to meet or approach expectations for grade 8 reading and writing, again confirming findings that males may face more challenges in school. Having fewer episodes of care (one or two, compared to four or more) was associated with better outcomes, possibly because there is less disruption in these children's lives. The associations with developmental disabilities, mental disorders, and Indigenous group are discussed at the beginning of the chapter in the section "Consistent Findings Across Outcomes."

Factors	level	Direction of	Statistical
		Association	Significance
Area-level SES of Child			
Area-level SES of School			
Child's Age (in Months)		•	***
Indigenous Group of Child	Not Determined	↑	*
	Non-Indigenous Motic	Τ	***
	First Nations (non-Status)		
	First Nations (Status) (REF)		
Child's Legal Status while in Care	Apprehension or PFFO		
5	Other		
	Lemporary Ward		
	Permanent Ward (REF)		
Kinshin Placement	Yes		
	No (REF)		
Reason for Being in Care	Abandonment		
5	Conditions of parent(s)		
	Conditions of child		
	Other		
	Conduct of child (RFF)		
Δαe (in Years) at Entry Into Care	1-4		
Age (in reals) at Entry into Care	5-9		
	≥10 1 (DEE)		
Creall fan Castalianal Anna at Disth	<1 (REF)		
Small for Gestational Age at Birth	Missing/No Category		
	No (RFF)		
Mother's Age (in Years) at First Birth	12-17		
	≥18 (REF)		
Sex	Male	¥	***
	Female (REF)		
Urban School	No (RFF)		
Eamily Receipt of Income Assistance	Yes		
ranny Receipt of Income Assistance	No (REF)		
Diagnosis of a Developmental Disability	Yes	•	***
	No (REF)		777
Diagnosis of a Mental Disorder	Yes No (REE)	•	
Substantiated Abuse of Child	Yes		
Substantiated Abuse of Child	No (REF)		
Care at Time of Assessment	Currently in care		
	Previously in care (REF)		
Total Number of in Care Episodes	1		*
	2	Т	
	4+ (REF)		
Total Number of Placements Experienced	1-3		
	4-6 7 (REE)		
Length of Time (in Very) Child Count is C	/ + (KEF) <1		
Length of Time (in Years) Child Spent in Care	1-2		
	3-4		
	5+ (REF)		

Table 5.6: Regression Analysis of Factors Associated with Grade 8 Reading and Writing Assessment 2007/08 - 2011/12

↑ = associated with an **increase** in the percent of children meeting or approaching expectations for grade 8 reading and writing

 Ψ = associated with a **decrease** in the percent of children meeting or approaching expectations for grade 8 reading and writing Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

PFFO = Petition Filed for Further Order

Earning Eight or More Credits in Grade 9

Table 5.7 shows the results for earning eight or more credits in grade 9. Positive estimates, which are indicated by upward arrows, mean more grade 9 students are completing eight or more credits, whereas negative estimates, which are indicated by downward arrows, mean fewer grade 9 students are earning eight or more credits. As shown in the table, the factors associated with an increase in earning eight or more credits in grade 9 are: higher school and student area-level SES; being in the Metis, non-Indigenous, non-status First Nations, or "not determined" Indigenous group; entering care for any reason other than the child's conduct; being in kinship care; and having one or two episodes of care (vs. four or more). Factors associated with reductions in earning eight or more credits in grade 9 are: older age; having any legal status besides being a permanent ward; entering care between the ages of 5 and 9, or at 10 years of age or older (compared to entering care during infancy); being male; having a developmental disability; having a mental disorder; and having one to three placements (compared to seven or more).

As with previous outcomes, being older was associated with poorer outcomes, perhaps because older youths in grade 9 are likely those who have been held back a grade at some point in their schooling. Also similar to previous outcomes, males were less likely to earn eight or more credits in grade 9, again confirming findings that males may face more challenges in school. Compared to permanent wards, every other legal status was associated with a reduction in earning eight or more credits, perhaps because of the effect of factors associated with disruption or temporary circumstances. Students who entered care later in childhood—at 5 to 9 years of age or at 10 years or older, compared to during infancy—were less likely to earn eight or more credits in grade 9. This may be because family disruption closer to the time of the outcome may create challenges for the child. Children who entered care due to conduct of the child were less likely to complete eight or more credits, perhaps because the conduct difficulties that result in the child going into care may also create learning challenges. Students in kinship care were more likely to earn eight or more credits, perhaps because kinship care may be less disruptive than other care placements (Chamberlain et al., 2006; Courtney & Needell, 1997; Iglehart, 1994; Leslie, Landsverk, Horton, Ganger, & Newton, 2000; Rubin et al., 2008). Likewise, children in care who had one or two episodes (compared to four or more) were more likely to complete eight or more credits. This suggests that that having fewer disruptions is better for learning and school engagement. Higher area-level student SES and higher area-level school SES were associated with more students completing eight or more credits; this is consistent with the well-established link between SES and educational outcomes (Brownell et al., 2004). Having one to three placements (compared to seven or more) was associated with a reduction in students earning eight or more credits. This finding is counterintuitive and contrary to other research that finds that having more placements is associated with poorer educational outcomes (Trocmé et al., 2009). The associations with developmental disabilities, mental disorders, and Indigenous group are discussed at the beginning of the chapter in the section "Consistent Findings Across Outcomes."

	· · ·	Direction of	Statistical
Factors	Level	Association	Significance
Area-level SES of Child		↑	***
Area-level SES of School		↑	***
Child's Age (in Months)		•	***
Indigenous Group of Child	Not Determined	↑	***
5	Non-Indigenous		***
	Metis	^	***
	First Nations (non-Status)		*
1	First Nations (Status) (REF)		
Child's Legal Status while in Care	Apprehension or PFFO	¥	***
	Other Tamana Manual	₩	**
		, T	***
	Permanent Ward (REE)	•	
Kinshin Placement	Yes	^	***
Kinship Hacement	No (REF)	-	
Reason for Being in Care	Abandonment	↑	***
5	Conditions of parent(s)	^	***
	Conditions of child	↑	***
	Conduct of parent(s)	↑	***
	Other	T T	***
	Londuct of child (REF)		
Age (in Years) at Entry Into Care	5-9	¥	**
	≥10		***
	<1 (REF)		
Small for Gestational Age at Birth	Missing/No Category		
-	Yes		
	No (REF)		
Sex	Male	•	***
	Female (REF)		
Urban School	No (RFF)		
Eamily Pacoint of Income Assistance	Yes		
Tariniy Receipt of Income Assistance	No (REF)		
Diagnosis of a Developmental Disability	Yes	₩	***
	No (REF)		
Diagnosis of a Mental Disorder	Yes	₩	***
	No (REF)		
Substantiated Abuse of Child	Yes No (PEE)		
Care at Time of Accessment	Currently in care		
Care at time of Assessment	Previously in care (RFF)		
Total Number of in Care Enisodes	1	· · · · · · · · · · · · · · · · · · ·	***
Total Number of In Care Episodes	2	↑	***
	3		
	4+ (KEF) 1 2		**
Total Number of Placements Experienced	1-3 4-6	•	
	7+ (REF)		
Length of Time (in Years) Child Spent in Care	<1		
Lenger of time (in reals) clind spent in Cale	1-2		
	3-4 5 - (DEE)		
	5+ (KEF)		1

Table 5.7: Regression Analysis of Factors Associated with Earning 8+ Credits in Grade 9 1996/97 - 2011/12

↑ = associated with an **increase** in the percent of children who have earned 8 or more credits in grade 9

 \bullet = associated with a **decrease** in the percent of children who have earned 8 or more credits in grade 9 Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

PFFO = Petition Filed for Further Order

High School Completion

Table 5.8 shows the results for high school completion. Positive estimates, which are indicated by upward arrows, mean more students are completing high school, whereas negative estimates, which are indicated by downward arrows, mean fewer students are completing high school. As shown in the table, the factors associated with increased high school completion are: higher school and student area-level SES; older age; being in the Metis, non-Indigenous or "not determined" Indigenous group; being apprehended or PFFO, or having "other" legal status (compared to permanent wards); being in kinship care; entering care due to conditions of parent(s), conditions of child, or conduct of the parent(s) (compared to conduct of the child); having missing information on size for gestational age at birth; and having one or two episodes of care (vs. four or more). Factors associated with reductions in high school completion included: entering care at age 10 or older; being male; being in an urban school; being on income assistance; having a developmental disability; and having a mental disorder.

Contrary to other outcomes, being older was associated with better outcomes, rather than poorer. This may be due to the fact that some students take longer to complete high school and are therefore more likely to complete at an older age. Compared to permanent wards, apprehension and "other" legal status were associated with higher rates of high school completion. It is not clear what this finding means; permanent wards transitioning out of the care system may be faced with multiple challenges (e.g., economic, housing, or food security) that may interfere with goals for completing high school. Youths who entered care at 10 years or older were less likely to complete high school, which could mean that family disruption closer to the time of the outcome may create challenges for students. Those who entered care due to conduct of the child were less likely to complete high school; the conduct difficulties that result in going into care may also create learning challenges. Youths in kinship care were more likely to complete high school, perhaps because kinship care may be less disruptive (Chamberlain et al., 2006; Courtney & Needell, 1997; Iglehart, 1994; Leslie et al., 2000; Rubin et al., 2008). Likewise, youths having one or two episodes of care, vs. four or more, were more likely to complete high school. This variable is also perhaps related to fewer disruptions that could have an impact on learning and school engagement. Higher area-level student SES and higher area-level school SES were associated with increased high school completion, whereas being on income assistance was associated with lower rates of high school completion (recall that there is a well-established link between SES and educational outcomes (Brownell et al., 2004)). Being in a rural school was associated with higher rates of high school completion, a finding that is contrary to what has been found for the general population (Brownell et al., 2012). The associations with developmental disabilities, mental disorders, and Indigenous group are discussed at the beginning of the chapter in the section "Consistent Findings Across Outcomes."

		Direction of	Statistical
Factors	Level	Association	Significance
Area-level SES of Child		^	**
Area-level SES of School		^	***
Child's Age (in Months)		^	***
Indigenous Group of Child	Not Determined	•	***
indigenous droup of child	Non-Indigenous		***
	Metic		*
	First Nations (non-Status)	Т	
	First Nations (Status) (REE)		
			+++
Child's Legal Status while in Care	Apprenension or PFFO	Ť	+++
	Other Temperany Ward	Т	
	Permanent Ward (REE)		
Kinchin Dlacamant	Yes	•	***
Kinship Placement	No (RFF)		
Passon for Boing in Caro	Abandonment		
Reason for being in care	Conditions of parent(s)	•	***
	Conditions of child		*
	Conduct of parent(s)	•	***
	Other	•	
	Conduct of child (REF)		
Age (in Vears) at Entry Into Care	1-4		
Age (in reals) at Entry into care	5-9		
	≥10	. ↓	***
	<1 (REF)		
Small for Gestational Age at Birth	Missing/No Category	↑	*
	Yes		
	No (REF)		
Sex	Male	¥	***
	Female (REF)		
Urban School	Yes	•	***
	No (REF)		
Family Receipt of Income Assistance	Yes	•	***
	No (REF)		777
Diagnosis of a Developmental Disability	Yes	•	***

Diagnosis of a Mental Disorder	No (PEE)	•	
Substantiated Abuse of Child	No (BFE)		
Care at Time of Accessment	Currently in care		
Cale at Time of Assessment	Previously in care (RFF)		
Total Number of in Care Enisodes	1	*	***
Total Number of In Care Episodes	2	I ★	*
	3	-	
	4+ (REF)		
Total Number of Placements Experienced	1-3		
	4-6		
	/+ (KEF)		
Length of Time (in Years) Child Spent in Care	<1 1_2		
	3-4		
	5+ (RFF)		

Table 5.8: Regression Analysis of Factors Associated with High School Completion 1996/97 - 2011/12

↑ = associated with an **increase** in the percent of children who have completed high school

 Ψ = associated with a **decrease** in the percent of children who have completed high school

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

PFFO = Petition Filed for Further Order

Summary and Interpretation

The preceding discussion examined each educational outcome separately to identify factors that were associated with better or worse outcomes for children in care. With so many factors examined and so many outcomes, it is possible that we made a type I error: identifying an association as statistically significant when no association actually exists. Statistically significant associations may also be found due to the presence of a certain third, unmeasured factor that influences an outcome. When we find a significant association between one of the factors and more than one of the outcomes, we can be more certain that this is a "real" effect of that factor, not a spurious association. For example, as discussed near the beginning of the chapter, children in care with developmental disabilities and mental disorders had poorer results for all outcomes examined, compared to children in care without these conditions. On the other hand, being small for gestational age was significantly associated with poorer outcomes for grade 3 reading, and having "missing" size for gestational age was associated with greater high school completion, but there were no other statistically significant associations between this factor and any other educational outcome. Thus, although being small for gestational age may play a role in educational outcomes for children in care, once other factors are taken into consideration, it does not appear to play an independent role in outcomes for these children. The remainder of this chapter discusses patterns of consistent findings—that is, statistically significant associations found for two or more educational outcomes. Please also see Appendix Table 3.9 in Appendix 3 for a summary table of all regression results.

Area-level SES of the child was significantly associated with grade 7 student engagement, number of credits earned in grade 9, and high school completion. Lower SES was associated with poorer outcomes. This suggests that children in care from lower SES backgrounds may be less engaged in school and less likely to complete high school. Area-level SES of the school was also significantly associated with the number of credits earned in grade 9 and with high school completion. This suggests that above and beyond the SES of the student, attending a school in a lower-SES area puts children in care at risk for not completing high school. This agrees with previous research which found that students from lower SES backgrounds and schools in lower SES areas may require additional resources to keep them engaged in and doing well in school (Jimerson, Carlson, Rotert, Egeland, & Sroufe, 1997; Vecchione, Alessandri, & Marsicano, 2014). This may be particularly relevant for children in care.

Student age was significantly associated with most of the outcomes, most of which showing that older students did worse. As discussed earlier for each outcome, this is likely because older students may have had to repeat a grade; these are students we know are facing learning challenges (Corman, 2003; Vecchione et al., 2014). Students in care who have had to repeat a grade will require additional attention to help them succeed. The exception to the pattern for student age was for high school completion, where older age was associated with an increase rather than a reduction in high school completion. As discussed, this is likely due to children in care taking extra time to complete high school, and suggests that providing additional supports for students aging out of the care system may be important for improving rates of high school completion.

For grade 3 numeracy, grade 7 mathematics, and number of credits earned in grade 9, having a legal status of temporary ward or voluntary placement agreement was associated with poorer performance than students who were permanent wards. Perhaps something about the transitional nature of these placements makes these students vulnerable, particularly in mathematics. This idea requires further exploration.

Being in kinship care⁴⁹ (i.e., placed with a relative) was associated with positive outcomes for high school students (number of credits earned in grade 9 and high school completion). This confirms findings from elsewhere, that kinship care is less disruptive to children and associated with better outcomes (Sawyer & Dubowitz, 1994).

⁴⁹ Note that kinship care is not defined as a placement type in CFSIS but was derived from a combination of placement category and type; please see footnote 11 in Chapter 3.

Entering care because of the child's conduct was associated with decreases in the number of credits earned in grade 9 and lower likelihood of high school completion. Conduct of the child could mean challenging emotional and behaviour problems that could interfere with learning or engagement in school.

Entering care at an older age—10 years or older vs. less than 1 year of age—was associated with poorer outcomes for grade 7 mathematics, number of credits in grade 9, and high school completion. It is possible that experiencing the disruption closer to the time of assessment may have a bigger impact on the outcome; it is also possible that children who enter care as teens or pre-teens may experience different challenges in school than children who entered care as infants.

For all outcomes except the two assessments related to mathematics (grade 3 numeracy and grade 7 mathematics), boys in care did more poorly than girls in care. This finding mirrors findings with the general population of students (Satchwell, 2004). Some educators have suggested that traditional schooling methods may put boys at a disadvantage in certain subjects (Satchwell, 2004; Voyer & Voyer, 2015).

Receipt of income assistance is generally a strong predictor of children's educational outcomes (Bougie, 2009; Brownell et al., 2012; Richards & Scott, 2009). However, for our analyses of children in care, income assistance (received by family of origin) was only significantly associated with EDI and high school completion. It could be that the lack of association with other outcomes is due to missing income assistance information for many of the children in care in this study.⁵⁰

For all outcomes examined, children with developmental disabilities had poorer outcomes than children without developmental disabilities. As mentioned in the beginning of the chapter, many developmental disabilities are associated with learning difficulties (Birchwood & Daley, 2012; Loe & Feldman, 2007).

Similarly, for all outcomes examined, children with mental disorders had poorer outcomes than children without mental disorders. As with developmental disabilities, many mental disorders are associated with learning difficulties (Birchwood & Daley, 2012; Loe & Feldman, 2007).

For grade 8 reading/writing, number of credits earned in grade 9, and high school completion, fewer episodes in care were associated with better outcomes. The relationship between school outcomes and number of episodes of care has been demonstrated elsewhere (Darmody et al., 2013). This association was not found for earlier (before grade 8) outcomes, perhaps because older children have more years to accumulate episodes.

Time absent from school had a statistically significant association with poorer outcomes in kindergarten (i.e., the more days absent, the more likely the child was to be deemed not ready for school learning). This variable was only available for kindergarten children because it was collected on the EDI. Research demonstrates that days absent is an important predictor of poor performance for children in care (Kortenkamp & Ehrle, 2002; Scherr, 2007).

As discussed at the beginning of the chapter, Indigenous group was associated with all of the outcomes, with First Nations children tending to have poorer outcomes. The observed differences in educational outcomes likely reflect social inequities confronting First Nations and Metis populations, including poverty, lack of adequate housing, lower funding on reserve for education and social services, cultural devaluation, racial discrimination, and the legacy of the residential school system (Bougie, 2009; Richards & Scott, 2009).

⁵⁰ Information on income assistance in the Repository is only available for those receiving provincial assistance. Information on those families receiving assistance through federal programs, such as those families in First Nations communities, is not available in the Repository.

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CHAPTER 6: PROGRAMS AIMED AT IMPROVING EDUCATIONAL OUTCOMES FOR CHILDREN IN CARE

There have been two recent literature reviews that focus on interventions aimed at improving the educational achievement of children in care. The first, by Forsman and Vinnerljung (2012), is a scoping review and includes 11 studies. The second, by Liabo, Gray and Mulcahy (2013), is a systematic review and also includes 11 studies. Only two studies are found in both reviews. Both reviews found that the effectiveness of programs that aim to improve the educational outcomes of children in care is largely unknown. Of the programs evaluated, many showed promising results for improving the educational success of these children; however, both reviews caution readers that weaknesses in study designs limit the conclusions that can be made about the effectiveness of the interventions examined. A brief description of these reviews is provided below. Tables 6.1 and 6.2 provide summaries of the interventions examined in the reviews.

Scoping Review of the Literature

According to Forsman and Vinnerljung, there is a distinct absence of research on the results of programs designed to improve the outcomes of children in care, particularly programs with large samples and rigorous designs. As a result, a severe shortage of empirically supported programs exists. However, Forsman and Vinnerljung also found that, where results were available, most programs seemed to make a positive difference on the outcomes of children in care. In fact, nine of the 11 reviewed programs showed positive results in reading comprehension (a reading composite measure), mathematics, word reading, spelling, vocabulary, or IQ.

Although Forsman and Vinnerljung cautioned that it was premature to draw any conclusions of the effectiveness of specific programs, they found some programs to be noteworthy. Tutoring programs seem to have the best empirical support (Flynn, Paquet, & Marquis, 2010; Harper & Schmidt, 2012; Osborne, Alfano, & Winn, 2010; Stuart, Hill, Male, Radford, & Olisa, 2003). Other successful programs included the distribution of learning material to children (Griffiths, Comber, & Dymoke, 2010; Wolfendale & Bryans, 2004), the provision of tailored, individualized support (O'Brien & Rutland, 2008; Tideman, Vinnerljung, Hintze, & Aldenius, 2011), or the use of an education liaison (Zetlin, Weinberg, & Kimm, 2004).

1. The ESTEP-tutoring Program	Provided each child participant with a trained college student volunteer who provided 65 hours of total tutoring. Children were also allowed to attend independent living workshops. No improvements in school performance were found after an evaluation of the program.	(Courtney et al., 2008)
2. The CRISIS Program	A behaviour modification program based on social learning theory, aimed at preventing delinquency. The program rewarded child participants for social and academic achievements by offering certain privileges. The program generally took children 14 weeks to complete the three-level system. An evaluation of this program did not show any significant academic improvements.	(Davidson II & Wolfred, 1977)
3. The Kids in Care Project	A tutoring program in which foster parents are trained in tutoring and behaviour management, and provide tutoring for three hours per week for 30 weeks. Significant improvements were found for reading comprehension and math, but not for spelling and word reading.	(Flynn et al., 2010)
4. The <i>Letterbox Club</i>	A program in which foster children received monthly parcels for six months. Included in the parcels were books, stationery items, and math games. Items were partly tailored to the child's learning level. This program was evaluated in 2007 and 2008 and showed significant improvements in reading in both years and in math in one year.	(Griffiths et al., 2010)
5. Group Tutoring Program	A group tutoring program, based on the model <i>Teach Your Children Well</i> (Michael Maloney, 1998, as found in Forsman and Vinnerljung, 2012), also had positive results. Tutoring was done by University students in groups of 3–4 children for two hours a week. The students were provided with two days of training and ongoing support throughout the 30-week program. The children showed significant improvements in word reading and spelling.	(Harper & Schmidt, 2012)

Table 6.1: Studies of Interventions for Children in Care Reviewed in Forsman and Vinnerljung, 2012

6. The KUMON Supplemental	An individualized learning program created from	(O'Brien & Rutland,
Program	the results of an assessment at enrolment. For two	2008)
	days a week, for an average of 20 months, child	
	participants worked under a supervisor at a	
	learning centre and were expected to complete	
	worksheets at home. Foster parents and social	
	workers were told how best to support the	
	children and one-on-one support was offered to	
	carers, if required. The authors of this study found	
	significant improvements in reading, although it	
	has been noted that these results should be	
	viewed with caution due to a lack of details on the	
	program evaluation.	
7. Teacher Volunteer Tutoring	Teacher volunteers tutored students two times per	(Stuart et al., 2003)
Program	week for 20 weeks, for a total of approximately 33	
	hours. The students were split into two groups,	
	one focused on math and the other on reading.	
	Tutors, foster parents, and case workers were	
	informed at the beginning of the program how	
	best to support the child. The authors of this study	
	found that this tutoring program led to significant	
	positive improvements in literacy for both groups	
	and in math for the math intervention group.	
8. The Paired Reading Intervention	Matched foster parents and children to help with	(Osborne et al., 2010)
Program	learning through tutoring and paired reading.	
	Foster parents, case workers, and school staff	
	attended workshops to learn more about the	
	methods of the program. The program lasted for	
	16 weeks, with carers and children reading	
	together for 20 minutes three days a week. The	
	evaluation of this program showed that the	
	children made significant gains in reading.	

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9. The Helsingborg Project	Established individualized plans for children in care	(Tideman et al., 2011)
	through an initial assessment of cognitive ability,	
	literacy, and numeracy skills. A psychologist and	
	special education teacher worked with children	
	and teachers to provide individualized educational	
	and psychological support. The evaluation of this	
	program demonstrated significant improvements	
	in children's IQ (measured by Wechsler Intelligence	
	Scale for Children III) and literacy. Math	
	improvements did not reach a significant level.	
10. 15-Month Program	Provided learning materials to children in care,	(Wolfendale & Bryans,
	such as books and a handheld computer. Project	2004)
	workers visited monthly to monitor progress,	
	create new plans, and address and resolve	
	difficulties. An evaluation of this program shows	
	significant increases in literacy skills.	
11. Education Liaison Program	In this education liaison program, social workers	(Zetlin et al., 2004)
	were paired with an education specialist to identify	
	and address educational problems, such as	
	appropriate receipt of special education services or	
	an inappropriate suspension from school. A non-	
	profit advocacy law firm aided the education	
	specialist to assist the social workers. This	
	intervention led to significant improvements in	
	reading and math, but not in grade point average	
	or attendance.	

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Systematic Review of Interventions to Support Children in Care in School

Liabo et al. (2013) conducted a systematic review of literature that assessed programs aimed at children in care aged 10 to 15 years in mainstream schools. The main outcomes of interest for this review were educational (e.g., final-year exams, literacy, numeracy), and excluded other important outcomes (e.g., mental health, motivation, satisfaction). The review found 11 studies that matched the search criteria; however, there were concerns that most of the studies lacked a control group, had a small sample size, and had large loss to follow-up. Liabo et al. noted that "none of these studies would have met the inclusion criteria usually required for a Cochrane or Campbell review on the effectiveness of an intervention" (p. 6). These studies were fit into one of six categories: strategic interventions (Berridge, Henry, Jackson, & Turney, 2009; Harker, Dobel-Ober, Akhurst, Berridge, & Sinclair, 2004; Zetlin et al., 2004); a pilot intervention of spending targeted money (Connelly et al., 2008); residential education program (Jones & Lansdverk, 2006); community project (Lee, Plionis, & Luppino, 1989); reading encouragement (Finn, 2008; Griffiths et al., 2010); and tutoring (Fraser, Barratt, Beverley, & Lawes, 2009; Lustig, 2008; Worsley & Beverley, 2009).

1. Strategic Interventions	Involved changes at the organizational level to affect	(Berridge et al., 2009:
	policy and practice with respect to the educational	Harker et al 2004 [.]
	outcomes of children in care. These interventions	7etlin et al. 2004)
	focused on improving the working relationship between	
	education and social care services. These programs	
	improved collaborations between departments, but did	
	not provide any clear trends in outcomes for the	
	children in care	
2. Dilet Interventions	Aimed at improving torgeted outcomes of children in	(Connolly at al. 2008)
2. Pliot Interventions	Aimed at improving targeted outcomes of children in	(Connelly et al., 2008)
	care in 18 authorities that were given money to improve	
	those outcomes. These included an increase in	
	attendance, a decrease in the number of days excluded	
	(i.e., days missed due to expulsion), and similar progress	
	in National Assessment Levels from one year to another	
	compared to children not in care, nationally.	
3.Residential Education	Aimed to provide children in care with a stable	(Jones & Lansdverk,
Program	residential home, support through high school and post	2006)
	secondary education, as well as with employment.	
	Outcomes included longer than average placement	
	stays, 28% of young people attending college at a six-	
	month follow-up, and educational outcomes similar to	
	children in foster care (which was not an option for the	
	youths in this study). A cause for concern for these	
	young people was a higher-than-expected rate of	
	substance abuse after discharge.	
4. The Community Project	Brought together mentoring, carer involvement, and	(Lee et al., 1989)
, , ,	vocational support to foster positive outcomes by	
	focusing on changing children in care and their	
	environment. Mentoring and tutoring were popular	
	aspects of the program: the vocational component was	
	not popular mostly because the young people felt the	
	iobs were too menial. The evaluation of this project	
	found that it had no significant impact on outcomes	
	after the first year	
	after the first year.	

Table 6.2: Categories of Interventions for Children in Care in Studies Reviewed in Liabo et al., 2013

5. Two Reading Encouragement	Two reading-encouragement programs for children in	(Finn, 2008; Griffiths
Programs: Reading Rich and	care were evaluated: Reading Rich and the Letterbox	et al., 2010)
Letterbox Club	Club. The Reading Rich program included book gifts,	
	improvements to reading environments in residential	
	care homes, and reading and writing activities. The main	
	outcome of the Reading Rich program was that it	
	appeared to improve carers' awareness of literacy as an	
	activity that can occur outside of school. The Letterbox	
	Club sent books, math games, and stationery through	
	the mail to children in care. This program had	
	significant effects, with children improving better than	
	average in reading and, in some cases, math.	
6. Tutoring Programs	Aimed at improving exam results and chances of	(Fraser et al., 2009;
	getting into particular schools or universities for	Lustig, 2008; Worsley
	children in care. The tutoring programs appear to have	& Beverley, 2009)
	increased the skills of children in care. Tutoring was	
	found to be very popular, as well as effective at	
	improving reading and math skills in children aged	
	5–14.	

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Other Studies

A recent study (Tordön, Vinnerljung, & Axelsson, 2014) found that individually-tailored plans led to positive educational outcomes for children in care. This study was a replication of the Helsingborg trial (see Table 6.1), which showed improvement in cognitive performance, spelling, word comprehension, and reading speed for children in care receiving individualized support (Tideman et al., 2011). Törden et al. (2014) found that intellectual capacity, as measured by the WISC-IV Index Scale, increased significantly over the two-year study period for all four indices (i.e., verbal comprehension, perceptual reasoning, working memory, processing speed) as well as in the full scale index. However, the small sample size (N=21) and lack of comparison group in this study are two important factors that limit the conclusions that can be made about the effectiveness of this intervention (Tordön et al., 2014).

In the United States, research suggests that children in care are receiving more supportive programming, and that certain programs are improving their outcomes (National Working Group on Foster Care and Education, 2014). Programs geared toward pre-kindergarten children in care have been associated with a number of positive outcomes, including increases in preschool enrolment rates (Shea, Weinberg, & Zetlin, 2011), decreases in aggressive or oppositional behaviour in the classroom (Pears, Kim, & Fisher, 2012), and stronger cognitive flexibility and theory of mind skills (Lewis-Morrarty, Dozier, Bernard, Terracciano, & Moore, 2012).

The U.S.-based National Working Group on Foster Care and Education recently updated a summary of research on children in care and educational outcomes. Some of the key factors for improving educational outcomes for children in care included training for parents and caregivers that targeted preschool children's self-regulation skills, programs aimed at increasing school stability, encouraging trauma-sensitive practices and supports in schools, special education programs involving coaching in self-determination and goal setting skills, mentoring by youth formerly in care, extending care until the age of 21 years, decreasing the number of placement changes, and training foster parents in tutoring methods (National Working Group on Foster Care and Education, 2014).

Manitoba School Division Project

Manitoba's fifth-smallest school division, Lakeshore, has made some important changes to the way it teaches children. In December 2012, Lakeshore School Division partnered with the province and Brandon University to launch a program aimed at improving high school graduation rates. Through this program, the school division manages its 1,200 students as if they were all in one school and encourages teachers and administrators to take risks on innovative ideas that could improve educational outcomes. Teachers meet weekly in schools and monthly across the division to talk about their students and challenges they are facing. Other changes to the standard educational model include multi-teacher settings, combining subjects, and having students undertake multi-subject projects. In 2009, the high school graduation rate was 50%; in 2013, the rate had increased to 92% (Martin, 2014). Although this program is not specifically for children in care, this group could be the focus of teacher discussions, given the particular challenges these children face. Rigorous evaluation of this program or similar interventions would provide useful evidence about what works, for which kids, and in which settings.

What Happens After High School? Transitional Programs

The majority of youths leaving care become independent between age 16 and 19, when they no longer qualify for child welfare services (Goldstein & Wekerle, 2008; Stein, 2006). However, these young people are often unprepared for the demands of independent living; they often experience what Wade and Dixon (2006) describe as "accelerated" transitions to adulthood, in which adult responsibilities are undertaken at an earlier age than their peers. As such, young people leaving care are at a greater risk of homelessness, unemployment, dependence on social assistance, physical or mental health problems, participating in risky behaviours, and involvement with the criminal justice system (Flynn & Tessier, 2011).

One method of helping youth transition into adulthood is to offer extended care and maintenance (ECM) agreements. These agreements, which are used in several Canadian provinces, including Ontario, Manitoba, British Columbia and Alberta, as well as in the United States, prolong services typically until age 20 or 21. The main purpose of ECM agreements is to ease the burden on older youth transitioning out of care, such that they have the opportunity to complete secondary school requirements, enroll in post-secondary education, or enter into appropriate employment. Flynn and Tessier (2011) found that the ECM program in Ontario has experienced positive outcomes, with most participants engaging in education, training, or employment. These findings may be subject to selection bias.

Currently in Manitoba, the University of Winnipeg and the University of Manitoba both have programs to encourage participation in post-secondary education by students formerly in care. The University of Winnipeg offers a program in which the university waives tuition fees, and the Manitoba Government's child welfare authorities pay for living expenses for youths on extensions of care (permanent wards, up to age 21), including housing, textbooks, and meal plans. In September 2012, 22 students participated, and in September 2013, 12 additional students were enrolled in this program ("Former Foster Kids," 2013). The University of Manitoba has a grant specifically for youth in care that supports the cost of undergraduate tuition up to a maximum of \$5,000 per year for a maximum of four years for each recipient. Ten awards are offered annually ("Youth-in-care grant," 2015).

Many programs in Canada and the United States exist to help older youths exit the child welfare system successfully. Some programs prepare young people for independent living and to overcome education and employment barriers, while others provide funds, support, and services for such things as housing, living allowances, employment assistance, and educational counseling. However, more research is needed to determine which of these programs are effective at producing positive outcomes for the young people who pass through them (Knoke, 2009).

New research from the United States suggests that increasing the education levels of young people previously in foster care is associated with increased levels of employment and increased earnings, and that the benefits are most pronounced for those who attain degrees (Okpych & Courtney, 2014). Of course, in order to be eligible for the university programs, children in care need to receive the supports necessary in the K–12 years so that they graduate from high school and are ready for post-secondary education.

In summary, the two recent reviews of the literature on programs aimed at improving educational outcomes for children in care, and some of the additional studies and programs discussed in this chapter, suggest some promising strategies. However, because these programs have not yet been rigorously evaluated, this report's authors are not recommending any particular program, but offering these as potential interventions that could be explored by Manitoba Education and Advanced Learning. Implementation of programs should be culturally sensitive. Programs implemented should be evaluated to demonstrate whether they lead to improved outcomes for children in care.

CHAPTER 7: SUMMARY AND CONCLUSIONS

This report had five main objectives:

- 1. Describe the characteristics of children in care in Manitoba.
- 2. Describe the educational outcomes of children in care in Manitoba.
- 3. Identify factors that are associated with positive (and negative) educational outcomes for children in care in Manitoba.
- 4. Provide information on programs that improve educational outcomes for children in care.
- 5. Provide recommendations on how educational outcomes for children in care can be improved in Manitoba.

Our findings related to each objective are discussed below.

Characteristics of Children in Care in Manitoba

We found that children in care in Manitoba have many characteristics that can put healthy development at risk. Compared to children who have not been in care or been receiving services from CFS, children in care were over seven times more likely to have a developmental disability, over four times more likely to experience a mental disorder, over eight times more likely to have a mother who reported using substances (e.g., alcohol, illegal drugs) during pregnancy, almost six times more likely to be from a family that received income assistance, and over six times more likely to have a mother who was 17 years or younger when she gave birth to her first child. Of those children in care in Manitoba, close to a third entered care before their first birthday.

Many people are aware that Manitoba has a large number of children in care. The most recent report from Manitoba Family Services put that number at 10,293 on March 31, 2014. What the public may not be aware of is that Manitoba has one of the highest rates of children in care in the world. This should be a major concern for Manitobans. High rates of children in care are an indication that effective home-based services are lacking for families in need, and that unacceptable living conditions, such as poor housing, poverty, poor parenting skills, and family dysfunction are not being addressed on a broader community or societal level (Trocmé, 2012). Nico Trocmé, the principal investigator for the Canadian Incidence Study of Reported Child Abuse and Neglect and renowned authority on child welfare issues in Canada, has stated that "as a broader community health indicator, the incidence of out-of-home placement is an important gauge of the overall well-being of children in community" (Trocmé et al., 2009, p. 4). The high rates of children in care in Manitoba suggest that the well-being of too many children in Manitoba is in jeopardy.

It is also well-known that there is an over-representation of Indigenous children in care in Manitoba. Although they compose about 26% of the child population in Manitoba, almost 90% of the children in care in Manitoba are Indigenous. This means that Indigenous children in Manitoba are much more likely to be taken into care than non-Indigenous children. Using population census data from the Canada Census, we were able to quantify this inequity: when looking at all Manitoba children 0 to 14 years of age, we found that 1.7% of non-Indigenous children spent some time in care before their 15th birthday; for Indigenous children this value was 16.6%, a near 10-fold difference. The greatest inequity was for First Nations children, who were over 13 times more likely to spend some time in care before age 15 than their non-Indigenous counterparts. Put another way, one of every 61 non-Indigenous children in 2006 had spent some time in care before their 15th birthday, compared to slightly more than one of every five First Nations children.

The over-representation of Indigenous children in care has its roots in the historical disadvantages experienced by Indigenous peoples. Wright (2013) has written that

The negative effects of colonization on the Aboriginal community, through government sanctioned practices such as residential schools and the apprehension of children, continue to permeate the health and well-being of Aboriginal families (Ball, 2008; Blackstock & Trocmé, 2004; Sinha, Trocmé, Blackstock, MacLaurin, & Fallon, 2011). Issues such as high levels of substance abuse, suicide, family violence, mental health issues and parenting are considered to result from "long-term social and economic impacts of colonization on Indigenous family life" (Tilbury & Thoburn, 2011, p. 294). (p. 10)

Strategies and initiatives aimed at addressing the over-representation of Indigenous children in care must therefore include strategies to address the social and economic challenges facing Indigenous communities.

Educational Outcomes of Children in Care

We demonstrated in this report that for every measure of success in school, ranging from readiness for school in kindergarten to completion of high school, children in care, as a group, did worse than children who were not in care but received services from CFS (protection or support services), who in turn did worse than children who had never been involved in the child welfare system. This does not mean that, by themselves, going into care or receiving services from CFS cause poor educational outcomes. We know that the very factors that lead to children being taken into care—things like neglect and exposure to violence—are the same factors that put children at risk for poor developmental outcomes, including doing poorly in school. However, we do not know whether putting children in care improves educational, or other, outcomes. To date there are no controlled trials that compare educational, health, or social outcomes for children in care to outcomes for children remaining with their families but receiving intensive home support (Gilbert et al., 2012).

Factors Associated with Educational Outcomes for Children in Care

Using the data in the MCHP Repository, we were able to identify a handful of factors associated with educational outcomes for children in care. Most of these factors do not translate into recommendations that can be incorporated in the classroom. However, they do pinpoint which students in care will likely require the most attention, assistance, and supports for improving their outcomes: older children, male children, children from low SES areas, children who miss the most school, children with developmental disabilities, children with mental disorders, Indigenous children, children who are temporary wards, children who are on voluntary placement agreements, children who enter care as pre-teens or teenagers, and children who have multiple episodes of care.

Programs that Improve Educational Outcomes for Children in Care

The research studies reviewed point to some promising strategies that can be used in classrooms to improve educational outcomes for children in care, however, to date, rigorous evaluations of these programs are lacking.

Collection of program data (including description of program and participant information) for programs run in schools is essential for future evaluations in Manitoba. As well, given the importance of attendance to school outcomes, collection of attendance data from schools by Education and Advanced Learning would be beneficial.

Recommendations on how Educational Outcomes for Children in Care can be Improved in Manitoba

Addressing objective five was a challenge. There were no program data from schools or school divisions about programs currently operating in Manitoba that could be examined in our analysis. While we were able to identify some factors that were associated with educational outcomes, as mentioned above, these factors do not translate easily into program recommendations for improving the educational outcomes of children in care.

We agree that it is important to provide as much support as possible so that children in care can succeed in school, and, as summarized in Chapter 6, that some programs may be effective to some degree. However, the information in this report highlights the need for the Manitoba Government to recognize that the high number of children in care, which is climbing, is a clear indication that preventive services are lacking or inadequate, particularly for Indigenous children and their families. This lack of services should be addressed as a priority.

The poor educational outcomes for children in care and the social challenges faced by these children will not be solved only by programs in schools, better emergency placements, or more quality foster homes. These are downstream approaches to challenges that ought to be solved upstream. We need to ensure that programs to promote family welfare—those that provide adequate housing, adequate income and employment opportunities, addictions prevention and treatment, mental health services, parent skill training, and parent support—are given at least as much attention and resources as child protection activities. Removing children from their families does not solve their problems; it is a short-term solution that fails to address underlying need (Trocmé, 2012). A question that remains unanswered is whether the educational outcomes of children in care can be significantly improved within the existing system. Many of the factors that result in children going in to care are the very factors that can impair their development and therefore their performance in school: poverty, poor housing, parental addictions, and family conflict and dysfunction. These are complex problems that need to be addressed at their root causes.

Addressing these complex problems requires innovative solutions and inter-sectoral approaches. Manitoba has been a leader in inter-sectoral policies and programs, exemplified by the work of the Healthy Child Committee of Cabinet (HCCC). Programs that show promise for improving outcomes for children and their families include: the Families First Home Visiting program, which involves supporting parents with young children and has been shown to be effective at decreasing the number of children taken into care (Chartier et al., 2014); the Towards Flourishing project, which has successfully embedded a mental health promotion component within the Families First Home Visiting program and connected families to needed resources and services (Chartier, Volk, Cooper, & Towards Flourishing Team, 2014); and the Healthy Baby program, which has, with a small prenatal income supplement, resulted in improved birth outcomes for babies born into low-income households (Brownell et al., 2014).

Despite achievements demonstrated by these programs, system-level changes are likely necessary in order to have a fundamental and lasting impact on alleviating the conditions that lead to children going into care in the first place. The Winnipeg Boldness Project is a collaborative partnership involving government, community groups, Indigenous communities, community members, business leaders, and charitable foundations, which are focused on improving circumstances for residents in the Point Douglas neighbourhood in Winnipeg. This project recognizes the devastating consequences of removing children from their families (Roussin, Gill, & Young, 2014). It is exploring new ways to enhance family and community functioning, and its efforts and results should be observed carefully to determine whether it is effective at alleviating the conditions that send children into care; and, if so, whether its strategies can be successfully implemented in other communities. Whether potential solutions come from the Winnipeg Boldness Project or some other source, the findings in this report suggest that the question to be answered is not how we can improve educational outcomes for children in care, but what needs to be done to alleviate the conditions that currently result in taking children into care in Manitoba.

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REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER

APPENDIX 1

Appendix Figure 1.1: Percentage of Children in Care between 2009/10 and 2011/12, by Sex and Age

TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CHAL

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Appendix Figure 1.2: Percentage of Children in Care between 2009/10 and 2011/12, by Latest Available Placement Category*

* Where possible, cases with unknown placements were assigned a previous placement category

Appendix Figure 1.3: Percentage of Children in Care between 2009/10 and 2011/12, by Current Legal Status*



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Appendix Table 1.1: Percentage of Manitoba Child Population Taken into Care, by Indigenous Group Children 0-14 years of age, 2011*

Indigenous Group (N)**	% in care at least 1 day in 2011 (n)	% ever in care up to December 31, 2011 (n)
Non-Indigenous (164,670)	1.1% (1,863)	2.1% (3,459)
Indigenous (62,730)	10.1% (6,352)	16.3% (10,228)
First Nations (41,960)	12.8% (5,361)	20.6% (8,630)
Metis (19,840)	4.9% (971)	7.9% (1,574)
Inuit (180)	11.1% (20)	13.3% (24)

*The values in this table should be interpreted with caution. The denominators are derived from the 2011 National Household Survey which replaced the long-form Census and response rates were substantially lower in Manitoba in 2011 (69.1%) compared to 2006 (95.5%).

**Source: Statistics Canada, 2011.

Appendix Table 1.2: Codes Used to Identify Substance Use

Definition and Corresponding ICD-9-CM/ICD-10-CA Codes

The excess use of and reliance on a drug, alcohol, or other chemical that leads to severe negative effects on the individual's health and well-being or to the welfare of others.

• One or more hospitalization with a diagnosis for alcohol or drug psychoses, alcohol or drug dependence, or

nondependent abuse of drugs (ICD-9-CM codes 291, 292, 303, 304, or 305; or ICD-10-CA codes F10-F19 or F55), **OR** • One or more physician visits with a diagnosis for alcohol or drug psychoses, alcohol or drug dependence, or

nondependent abuse of drugs (ICD-9-CM codes 291, 292, 303, 304, or 305).

The definition is restricted to residents age 10 and older.

Data	Codes	Description
Hospital Discharge	ICD 0 CM as day	
Abstracts Data	Image: Constraint of the second sec	Mild Mental Retardation (MR) Other MR Unspecified MR Autism and other psychoses with origin specific to childhood Chromosomal Anomalies (includes Down's, Patau's and Edward's syndromes) Other and unspecified congenital anomalies Fetal Alcohol Syndrome (FAS)
	<i>ICD-10-CA codes</i> F70.0, F70.1, F70.8, F70.9 F71.0, F71.1, F71.8, F71.9 F72.0, F72.1, F72.8, F72.9 F73.0, F73.1, F73.8, F73.9 F78.0, F78.1, F78.8, F78.9 F79.0, F79.1, F79.8, F79.9 F84.0, F84.1, F84.3, F84.4, F84.5, F84.8, F84.9	Mild mental retardation Moderate mental retardation Severe mental retardation Profound mental retardation Other mental retardation Unspecified mental retardation Pervasive developmental disorders
	P04.3 Q86.0, Q86.1, Q86.2, Q86.8	Fetus and newborn affected by maternal use of alcohol Congenital malformation syndromes due to
	Q87.0, Q87.1, Q87.2, Q87.3, Q87.5, Q87.8 Q89.8 Q90.0 Q90.1 Q90.2 Q90.9	known exogenous causes, not elsewhere classified Other specified congenital malformation syndromes affecting multiple systems Other specified congenital malformations
	Q91.0, Q91.1, 91.2, Q91.3, 91.4, Q91.5, 91.6, Q91.7 Q93.0, Q93.1, Q93.2, Q93.3, Q93.4, Q93.5, Q93.6, Q93.7,	Edward's syndrome and Patau's syndrome Monosomies and deletions from the autosomes, not elsewhere classified
	Q93.8, Q93.9 Q99.2	Fragile X chromosome
Medical Services		
Data	ICD-9-CM codes 317 318 319 299	Mild Mental Retardation (MR) Other MR Unspecified MR Autism and other psychoses with origin specific to childhood
Education Data	CATEGORYN "MH" CATEGORYN "ASD"	"approved status" special needs funding for Multiple Handicaps "approved status" special needs funding for Autism Spectrum Disorder

Appendix Table 1.3: Codes Used to Identify Developmental Disabilities

Disorder	Definition and Corresponding ICD-9-CM/ICD-10-CA and ATC Codes
	A neurobehavioral developmental disorder that is characterized by inattention, hyperactivity, and impulsivity. The disorder is often identified
	during school ages and symptoms may continue into adulthood. ADHD occurs twice as commonly in boys as in girls (American Psychiatric
	Association, 2000).
Attention-	• One or more hospitalizations with diagnosis of hyperkinetic syndrome (ICD-9-CM code 314 or ICD-10-CA code F90) in one fiscal year, OR
Deficit	• One or more physician claims with diagnosis of hyperkinetic syndrome (ICD-9-CM code 314) in one fiscal year, OR
Hvneractivity	• Two or more prescriptions for ADHD drugs in one fiscal year without a diagnosis in the same fiscal year of:
Discuden	- conduct disorder (ICD-9-CM code 312 or ICD-10-CA codes F63, F91, or F92), OR
	- disturbance of emotions (ICD-9-CM code 313 or ICD-10-CA codes F93 or F94), OR
	- cataplexy/narcolepsy (ICD-9-CM code 347 or ICD-10-CA code G47.4), OR
	One prescription for ADHD drugs in one fiscal year with diagnosis of hyperkinetic syndrome (ICD-9-CM code 314 or ICD-10-CA code F90)
	in the previous 3 fiscal years.
	The definition is restricted to residents age 6 and older.
	Disorders characterized by a repetitive and persistent pattern of dissocial, aggressive, or defiant conduct.
Conduct	• One or more hospitalizations with a diagnosis of conduct disorder (ICD-9-CM code 311 or ICD-10-CA codes all F91 except F91.3), OR
Disorder	One or more physician visits with a diagnosis of conduct disorder (ICD-9-CM code 312).
	The definition is restricted to residents age 6 and older.
	Term given for a group of diagnoses in the Diagnostic and Statistical Manual of Mental Disorders classification system where a disturbance in
	the person's mood is hypothesized to be the main underlying feature.
	• One or more hospitalizations with a diagnosis for depressive disorder, affective psychoses, neurotic depression, or adjustment reaction
	(ICD-9-CM codes 296.1-296.8, 300.4, 309, or 311; or ICD-10-CA codes F31, F32, F33, F34.1, F38.0, F38.1, F41.2, F43.1, F43.2, F43.8, F53.0, or
	F93.0), or with a diagnosis for an anxiety state, phobic disorders, or obsessive-compulsive disorders (ICD-9-CM codes 300.0, 300.2, 300.3, or
Mood and	300.7; or ICD-10-CA codes F40, F41.0, F41.1, F41.3, F41.9, F42, or F45.2), OR
Anvietv	• One or more hospitalizations with a diagnosis for anxiety disorders (ICD-9-CM code 300 or ICD-10-CA codes F32, F34.1, F40, F41, F42,
Disordor	F44, F45.0, F45.1, F45.2, F48, F68.0, or F99) AND one or more prescriptions for an antidepressant or mood stabilizer, including medications
	with the ATC codes N05AN01, N05BA, or N06A, OR
	• One or more physician visits with a diagnosis for depressive disorder or affective psychoses (ICD-9-CM codes 296 or 311), OR
	• One or more physician visits with a diagnosis for anxiety disorders (ICD-9-CM code 300) AND one or more prescriptions for an
	antidepressant or mood stabilizer, including medications with the ATC codes N05AN01, N05BA, or N06A, OR
	• Three or more physician visits with a diagnosis for anxiety disorders or adjustment reaction (ICD-9-CM codes 300 or 309).
	The definition is restricted to residents age 10 and older.
	A long-term mental illness that affects how a person thinks, feels and acts. Symptoms of the illness include auditory hallucinations, delusions,
- - -	difficulty in expressing emotions, or disorganized speech and thought.
scnizophrenia	 One or more nospitalizations with a diagnosis of schizophrenia (ICD-9-CM code 295 or ICD-10-CA codes F20, F21, F23.2, or F25), OR One or more physician visits with a diagnosis of schizophrenia (ICD-9-CM code 295).
	The definition is restricted to residents age 12 and older.
Substance	See Appendix Table 1.2
000	

APPENDIX 2

Appendix Table 2.1: Regression Analysis of Factors Associated with Kindergarten Student "Not Ready" in One or More EDI domains 2005/06, 2006/07, 2008/09, and 2010/11

TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CHAL REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER T

		Мо	del 1	Мо	del 2
		Direction of	Statistical	Direction of	Statistical
Factors	Level	Association	Significance	Association	Significance
Area-level SES of Child		$\mathbf{+}$	***	¥	***
Area-level SES of School					
Child's Age in Months		^	***	↑	***
In Care Category	Never in Care/Never Received CFS	+	***	•	***
	Ever Received CFS	↓	**	↓	**
	Ever In Care (REF)				
Small for Gestational Age at	Missing/No Category				
Birth	Yes	^	***		***
	No (REF)				
Mother's Age (in Years) at	12-17	<u>↑</u>	***	↑	***
First Birth	≥18 (REF)				
Sex	Male	<u>↑</u>	***	↑	***
	Female (REF)				
Urban School	Yes				
	No (REF)				
Family Receipt of Income	Yes	<u>↑</u>	***	<u>^</u>	***
Assistance	No (REF)				
Diagnosis of a	Yes	1	***		
Developmental Disability	No (REF)				
Diagnosis of a Mental	Yes				
Disorder	No (REF)				
Maternal Substance Use	Yes				
During Pregnancy	No (REF)				
Proportion of Total Days	Missing	^	***	↑	***
Absent	>0%-<10%	^	***	↑	***
	10%-<20%	↑	***	^	***
	20%-<30%	↑	***	^	***
	≥30%	↑	***	↑	***
	0% (REF)				

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

Model 1 - model including all children in care with all factors included

Model 2 - model including all children in care with Developmental Disability factor excluded

		Moo	del 1	Mod	del 2
		Direction of	Statistical	Direction of	Statistical
Factors	Level	Association	Significance	Association	Significance
Area-level SES of Child		^	***	↑	***
Area-level SES of School		^	***	↑	***
Child's Age in Months					
In Care Category	Never in Care/Never Received CFS	^	***	★	***
	Ever Received CFS				
	Ever In Care (REF)				
Small for Gestational Age at	Missing/No Category				
Birth	Yes	↓	***	. ↓	***
	No (REF)				
Mother's Age (in Years) at	12-17	↓	***	. ↓	***
First Birth	≥18 (REF)				
Sex	Male	↓	***	◆	***
	Female (REF)				
Urban School	Yes				
	No (REF)				
Family Receipt of Income	Yes	↓	***	◆	***
Assistance	No (REF)				
Diagnosis of a	Yes	+	***		
Developmental Disability	No (REF)				
Diagnosis of a Mental	Yes	+	***	•	***
Disorder	No (REF)				

Appendix Table 2.2: Regression Analysis of Factors Associated with Grade 3 Reading Assessment 2009/10 - 2011/12

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

Model 1 - model including all children in care with all factors included

Model 2 - model including all children in care with Developmental Disability factor excluded

		Moo	del 1	Moo	del 2
Factors	Level	Direction of Association	Statistical Significance	Direction of Association	Statistical Significance
Area-level SES of Child		^	***	↑	***
Area-level SES of School		^	***	↑	***
Child's Age in Months		↑	**	↑	***
In Care Category	Never in Care/Never Received CFS	↑	***	↑	***
	Ever Received CFS	↑	***		***
	Ever In Care (REF)				
Small for Gestational Age at	Missing/No Category				
Birth	Yes	↓	***	↓	**
	No (REF)				
Mother's Age (in Years) at	12-17	$\mathbf{+}$	**	↓	**
First Birth	≥18 (REF)				
Sex	Male				
	Female (REF)				
Urban School	Yes				
	No (REF)				
Family Receipt of Income	Yes	↓	***	↓	***
Assistance	No (REF)				
Diagnosis of a	Yes	+	***		
Developmental Disability	No (REF)				
Diagnosis of a Mental	Yes	•	***	•	***
Disorder	No (REF)				

Appendix Table 2.3: Regression Analysis of Factors Associated with Grade 3 Numeracy Assessment 2009/10 – 2011/12

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

Model 1 – model including all children in care with all factors included

Model 2 - model including all children in care with Developmental Disability factor excluded

		Moo	del 1	Moo	del 2
Factors	Level	Direction of Association	Statistical Significance	Direction of Association	Statistical Significance
Area-level SES of Child		^	***	↑	***
Area-level SES of School					
Child's Age in Months		↓	***	↓	***
In Care Category	Never in Care/Never Received CFS Ever Received CFS	↑ ↑	***	↑ ↑	***
Small for Gestational Age at Birth	Missing/No Category Yes No (REF)	¥	***	¥	***
Mother's Age (in Years) at First Birth	12-17 ≥18 (REF)	•	***		***
Sex	Male Female (REF)	•	***	•	***
Urban School	Yes No (REF)				
Family Receipt of Income	Yes	↓	***	↓	***
Assistance	No (REF)				
Diagnosis of a	Yes	$\mathbf{+}$	***		-
Developmental Disability	No (REF)				
Diagnosis of a Mental	Yes	↓	***	+	***
Disorder	No (REF)				
Maternal Substance Use	Yes			↓	*
During Pregnancy	No (REF)				

Appendix Table 2.4: Regression Analysis of Factors Associated with Grade 7 Mathematics Assessment 2007/08 – 2011/12

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

Model 1 – model including all children in care with all factors included

Model 2 – model including all children in care with Developmental Disability factor excluded

		Mo	del 1	Мос	del 2
		Direction of	Statistical	Direction of	Statistical
Factors	Level	Association	Significance	Association	Significance
Area-level SES of Child		↑	***	^	***
Area-level SES of School					
Child's Age in Months		↓	***	+	***
In Care Category	Never in Care/Never Received CFS	↑	***	^	***
	Ever Received CFS	↑	***	^	***
	Ever In Care (REF)				
Small for Gestational Age	Missing/No Category				
at Birth	Yes	↓	**	↓	**
	No (REF)				
Mother's Age (in Years) at	12-17	↓	***	↓	***
First Birth	≥18 (REF)				
Sex	Male	↓	***	↓	***
	Female (REF)				
Urban School	Yes				
	No (REF)				
Family Receipt of Income	Yes	↓	***	↓	***
Assistance	No (REF)				
Diagnosis of a	Yes	↓	***		
Developmental Disability	No (REF)				
Diagnosis of a Mental	Yes	↓	***	+	***
Disorder	No (REF)	Ι			
Maternal Substance Use	Yes	↓	***	↓	***
During Pregnancy	No (REF)	Ī			

TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENT

Appendix Table 2.5: Regression Analysis of Factors Associated with Grade 7 Student Engagement Assessment

2007/08 - 2011/12

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

Model 1 - model including all children in care with all factors included

Model 2 - model including all children in care with Developmental Disability factor excluded

Appendix Table 2.6: Regression Analysis of Factors Associated with Grade 8 Reading and Writing Assessment

2009/10 - 2011/12

		Мо	del 1	Мо	del 2
		Direction of	Statistical	Direction of	Statistical
Factors	Level	Association	Significance	Association	Significance
Area-level SES of Child		^	***	↑	***
Area-level SES of School		^	***	↑	***
Child's Age in Months		¥	***	≯	***
In Care Category	Never in Care/Never Received CFS	↑	***	↑	***
	Ever Received CFS	^	***	↑	***
	Ever In Care (REF)				
Small for Gestational Age at	Missing/No Category				
Birth	Yes	$\mathbf{+}$	*		
	No (REF)				
Mother's Age (in Years) at	12-17	↓	***	→	***
First Birth	≥18 (REF)				
Sex	Male	↓	***	→	***
	Female (REF)				
Urban School	Yes			↑	*
	No (REF)				
Family Receipt of Income	Yes	\bullet	***	◆	***
Assistance	No (REF)				
Diagnosis of a	Yes	+	***		
Developmental Disability	No (REF)				
Diagnosis of a Mental	Yes	↓	***	↓	***
Disorder	No (REF)				

TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER CREATOR EXPLORER DEFENDER CREATOR EXPLORER

Level of Statistical Significance: *p<0.05, **p<0.01, ***p<0.001

REF = Reference Group

Model 1 - model including all children in care with all factors included

Model 2 - model including all children in care with Developmental Disability factor excluded



Appendix Figure 2.1: Percentage of Children Not Ready for School, by In Care Category Children* with EDI Assessments who are Not Ready in one or more EDI Domains, 2008/09 – 2010/11

*Children born during calendar years 2003 and 2005.





Children* with Reading Assessments who were Meeting or Approaching Expectations in all 4 Competencies, 2010/11 – 2011/12 for Cohort Approach

Appendix Figure 2.3: Percentage of Children Competent in Grade 3 Numeracy, by In-Care Category Children* with Numeracy Assessments who were Meeting or Approaching Expectations in all 4 Competencies,



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Appendix Figure 2.4: Percentage of Children Competent in Grade 7 Math, by In-Care Category

Children* with Math Assessments who were Meeting or Approaching Expectations in all 5 Competencies, 2010/11 – 2011/12 for Cohort Approach

Appendix Figure 2.5: Percentage of Children Competent in Grade 7 Engagement, by In-Care Category Children* with Engagement Assessments who were Established or Developing in all 5 Competencies,



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Appendix Figure 2.6: Percentage of Children Competent in Grade 8 Reading and Writing, by In-Care Category

REBEL PIONEER

TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CHAL

RFATOR FXPI ORFR DEFENDER TRAIL RI A7ER CHALLENGER VISIONARY INNOVATOR ADVENTURER REREL PIONEER CREATOR EXPLORER DEFENDER T

UNIVERSITY OF MANITOBA, FACULTY OF HEALTH SCIENCES page 114 | Appendix 2 Appendix Figure 2.7: Grade 12 Language Arts Standards Test Performance for Children Ever in Care, School Years 2001/02 – 2010/11 Birth Cohort 1984 – 1993



REREI PIONEER

TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER VISIONARY INNOVATOR

REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR

Appendix Figure 2.8: Grade 12 Language Arts Standards Test Performance for Children Who Ever Received Services from CFS but Never in Care, School Years 2001/02 – 2010/11



Appendix Figure 2.9: Grade 12 Language Arts Standards Test Performance for Children Never in Care and Never Received Services from CFS, School Years 2001/02-2010/11 Birth Cohort 1984 – 1993



Appendix Figure 2.10: Grade 12 Mathematics Standards Test Performance for Children Ever in Care, School Years 2001/02 – 2010/11 Birth Cohort 1984 – 1993



Appendix Figure 2.11: Grade 12 Mathematics Standards Test Performance for Children Who Ever Received Services from CFS but Never in Care, School Years 2001/02 – 2010/11



Appendix Figure 2.12: Grade 12 Mathematics Standards Test Performance for Children Never in Care and Never Received Services from CFS, School Years 2001/02-2010/11



Appendix Table 3.1: Regression Analysis of Factors Associated with Kindergarten Students "Not Ready" in One or More EDI Domains, by All Model Types

	- 90/5002	- 2010/1	_		L								
					e		First Nati	ons		W	stis	Non-Ind	igenous
		Direction of	Statistical	Direction of	Statistical	Direction of	Statistical Di	irection of 5	4 Statistical D	irection of Statistical	Direction of Statistical	Direction of Statistical	Direction of Statistical
Factor	Level	Association	Significance	Association S	ignificance	Association S	ignificance A	ssociation Si	gnificance	Association Significance	Association Significance	Association Significance	Association Significance
Area-level SES of Child Area-level SES of School									I				
Child's Age (in Months)		÷	**	÷	**	÷	**	÷	**				
Indigenous Group of Child	Not Determined Non-Indigenous Metis First Nations (non-Status) First Nations (Status) (REF)	*	**	•	**								
Child's Legal Status while in Care	Apprehension or PFFO Other Temporary Ward VPA Permanent Ward (REF)												
Kinship Placement	Yes No (REF)												
Reason for Being in Care	Abandonment Conditions of parent(s) Conditions of child Conduct of parent(s) Other Conduct of child (REF)												
Age (in Years) at Entry Into Care	1-2 3-4 ≥5 <1 (REF)												
Small for Gestational Age at Birth	Missing/No Category Yes No (REF)												
Mother's Age (in Years) at First Birth	12-17 ≥18 (REF)												
Sex	Male Female (REF)	÷	***	÷	****	÷	***	÷	***				
Urban School	Yes No (REF)												
Family Receipt of Income Assistance	Yes No (REF)	÷	*	÷	*								
Diagnosis of a Developmenta Disability	l Yes No (REF)	÷	***			÷	***						
Diagnosis of a Mental Disorder	Yes No (REF)	÷	***	÷	***	÷	*	÷	*				
Maternal Substance Use During Pregnancy	Yes No (REF)												
Substantiated Abuse of Child	Yes No (REF)												
Care at Time of Assessment	Currently in care Previously in care (REF)												
Total Number of in Care Episodes	1 2 3 4+ (REF)												
Total Number of Placements Experienced	1-3 4-6 7+ (REF)	•	*	•	*								
Length of Time (in Years) Child Spent in Care	<1 1-2 3-4 5+ (REF)												
Proportion of Total Days	Missing >0%-<10%	. .	* *	. .	* *	÷	*	÷	*				
ADSENT	10%- <20%	- + •	***		***	((: :	÷ •	: :				
	∠0%-<30% ≥30% 0% (REF)	+ ←	**	F C	***	- ←	***	÷ ¢	***				
Level of Statistical Signific Model 1 – model including Model 2 – model including	ince: *p < 0.05, **p<0.01, *** all children in care with all all children in care with De	o<0.001 factors includ velopmental [ed Disability facto	or excluded									
Model 3 – model includin Model 4 – model includin Table cells are shaded whe	i all children in care with all i all children in care with De re data were not available c	tactors includ /elopmental [r not applicat	ed, by Indiger Disability facto ble.	nous Group or excluded, by	Indigenous	Group							
REF = Reference Group PFFO = Petition Filed for F VPA = Voluntary Placemer	urther Order it Agreement	-											

TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER DEFENDER CREATOR EXPLORER CREATOR EXPLORER CREATOR EXPLORER

APPENDIX 3

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Types	
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						First Na	tions			Met	į			Non-Indi	denous	
	Mo	del 1	Mod	el 2	Mode	3	Mod	el 4	Mod	el 3	Mod	94	Mode	el 3	Mod	el 4
Factor Level	Direction of Association	Statistical I Significance	Direction of Association	Statistical Significance	Direction of	Statistical [Direction of	Statistical Statistical	Direction of Association	Statistical	Direction of Association	Statistical Significance	Direction of Association	Statistical Significance	Direction of Association	Statistical
Area-level SES of Child	1330010010	and an inclusion						מאווורמוורב				מאווורמורב				
Area-level SES of School																
Child's Age (in Months)					1											
Indigenous Group of Child Not Detemmed Non-Indigenous Metis First Nations (non-Status)	* * *	* * *	* * *	* * *												
First Nations (Status) (REF)										,	•	,				
Child's Legal Status while Apprenension or PFFO in Care									÷	ĸ	÷	ĸ				
Temporary Ward					→ →	* *	÷	*	•	**	•	*				
Permanent Ward (REF)					•		•		÷		÷					
Kinship Placement Yes																
Reason for Being in Care Abandonment	÷	***	•	***	→	***	÷	***	¢	*	¢	*				
Conditions of parent(s)	→ ·	***	→ ·	***	→ ·	***	.	***								
Conditions of child Conduct of nerent(c)	>	* **	* •	* **) →	** *	* 	* **								
Other	• •	***	• •	***	• •	***	• •	***								
Conduct of child (REF)																
Age (in Years) at Entry Into 1-4 Care ≥5																
<1 (KEF)																
Small for Gestational Age Missing/No Category at Birth Yes No (RFF)	•	*	•	*	•	*	•	**								
Mother's Age (in Years) at 12-17	÷	*							•	**	÷	×				
First Birth ≥18 (REF)																
Sex Male Female (REF)	•	***	÷	* * *	÷	***	÷	***								
Urban School Yes																
no (REF)																
Family Receipt of Income Yes Assistance No (REF)																
Diagnosis of a Yes	÷	***			÷	***							÷	**		
Developmental Disability No (REF)	+	4444	-	***	-	,	-	4		***	1.	****				
Diagnosis of a Mental Yes Disorder No (REF)	÷	***	÷	***	÷	×	÷	*	÷	***	÷	***				
Substantiated Abuse of Yes																
Child No (REF)																
Care at lime of Currently in care Assessment Previously in care (REF)																
Total Number of in Care 1																
Episodes 2 3																
4+ (REF)																
Total Number of 1-3 Placements Experienced 4-6																
7+ (REF)					Ì					4444	.1.					
Length of Time (in Years) <1 Child Spent in Care 3-4 3-4									→	* * * *	→ →	ŧ *	÷	*	÷	*
5+ (REF)																
Level of Statistical Significance: *p<0.05, **p<0.0 Model 1 – model including all children in care wi Model 2 – model including all children in care wi Model 2 – model including all children in care wi	1, ***p <0.001 th all factors ir th Developme	Icluded Ital Disability f	actor exclude	gq												
Model 4 – model including all children in care wi	th Developme	ntal Disability f	actor exclude	up ed, by Indiger	nous Group											
Table cells are shaded where data were not avails	able or not ap	olicable														
PFFO = Petition Filed for Further Order																
VPA = Voluntary Placement Agreement																

Appendix Table 3.3: Regression Analysis of Factors Associated with Grade 3 Numeracy Assessment, by All Model Types 2009/10 - 2011/12

					L		First Nat	tions			Met	is			Non-India	tenous	
		Mc	t l by	Mod	el 2	Mode	el 3	Model	4	Mode	e 13	Mode	4	Mode	3	Mode	4
actor	evel	Direction of Association	f Statistical Significance	Direction of	Statistical Statistical	Direction of	Statistical [Direction of S	Statistical [Direction of	Statistical	Direction of	Statistical D	Direction of	Statistical D	Direction of	Statistical
Area-level SES of Child		IO MILLOOSCU		In the second se													
Area-level SES of School																	
Child's Age (in Months)																	
Indigenous Group of Child 1	Vot Determined Von-Indiaenous	÷	*	÷	*												
. ~	Metis	-		-													
UL	First Nations (non-Status)																
Child's Legal Status while <i>F</i>	Apprehension or PFFO								ľ								
in Care (Other															• •	
	Femporary Ward	→ -	* *			ł	*										
	PEA Permanent Ward (REF)	•	E.			•	ı										
Kinship Placement	/es																
	VO (KEF)				Ť	Î											
	Conditions of parent(s)																
5	Conditions of child																
	Conduct of parent(s)																
	Other Conduct of child (RFF)																
Arre (in Vears) at Entry Into 1	-4				Ī	l	l	l	l	I	ľ		Ī	l			
	-5																
-care -	<1 (REF)																
Small for Gestational Age	Missing/No Category																
at Birth	res Lio (PEE)																
Mother's Age (in Years) at 1	40 (Ker) 12-17				T					•	**	,	*				
First Birth 2	218 (REF)																
Sex	Male																
IIrhan Crhool	-emale (KEF)				I												
	Vo (REF)																
Family Receipt of Income	/es					÷	*										
Assistance	Vo (REF)					ŀ											
Diagnosis of a	/es	•	***			÷	***										
Developmental Disability I	VO (KEF)	ł	***	7	***	1	,	Ŧ	,	Ŧ	***	-	***	-	,	-	,
Disorder	res Vio (REF)	•	*	•	* * *	÷	ĸ	•	ĸ	•	K K K	•	*	•	ĸ	•	ĸ
Substantiated Abuse of Y	'es				l		l										
Child	Vo (REF)																
Care at Time of	Currently in care																
Total Number of in Care 1	IEVIOUSIY III COLE (NEL)				I	l		ľ	Ī	ľ			l	•	*	•	*
Enicodes														÷	*	÷	*
Total Number of	++ (KEr)				Ì	I	T		Ī								
Placements Experienced 4	1-6																
	/+ (REF)				T											•	,
Child Ength of Time (in Years)																(× *
	3-4													÷	*	•	**
	5 + (REF)																
Level of Statistical Signific	ance: *p<0.05, **p<0.01,	100.001															
Model 2 – model includin	g all children in care with	Developme	antal Disability	factor excluc	Jed												
Model 3 – model includin	g all children in care with	n all factors i	included, by In	digenous Gro	oup And her Indian	anon Group											
Table cells are shaded when	ere data were not availab	ale or not ap	volicable.	ומרוחו בצרוחו	veu, uy muuge												
REF = Reference Group																	
PEFO = Petition Filed for F																	

VPA = Voluntary Placement Agreement

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					Ŀ		First Na	tions			Met	į			Non-India	denotis	
		Mode	11	Mode	<u> 1</u> 2	Mode	6 3	Mode	4	Mode	3	Mod	94	Mode		Mode	14
actor	Level	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical
Area-level SES of Child		Association	Significance	Association	Significance	Association	Significance	Association S	ignificance	Association	significance	Association	Significance	Association 5	ignificance /	Association	Significance
Area-level SES of School																	
Child's Age (in Months)		→	***	÷	***	÷	***	→	***	÷	*	→	*	÷	*		
Indigenous Group of Child	Not Determined Non-Indigenous Metis First Nations (non-Status) First Nations (Status) (REF)	÷	* **	÷	*												
Child's Legal Status while in	Apprehension or PFFO									÷	*	÷	*				
Care	Other Temporary Ward VPA Permanent Ward (REF)	* *	* *	→	*					÷	*	÷	*				
Kinship Placement	Yes No (REF)																
Reason for Being in Care	Abandonment Conditions of parent(s) Conditions of child Conduct of parent(s) Other Conduct of child (REE)															÷	*
Age (in Years) at Entry Into Care	1-4 5-9 ≥10 <1(REF)	→	*	→	*	→	*										
Small for Gertational Ace at	Missing/No Category		I	l	Ī	l			Ī		I		I	Ī		I	
Birth	Yes No (REF)																
Mother's Age (in Years) at First Birth	12-17 ≥18 (REF)																
Sex	Male Female (REF)																
Urban School	Yes No (REF)															÷	*
Family Receipt of Income Assistance	Yes No (REF)									÷	**	÷	**	÷	*	,	*
Diagnosis of a Developmenta Disability	l Yes No (REF)	÷	***			÷	***			→	*			÷	*		
Diagnosis of a Mental Disorder	Yes No (REF)	÷	***	÷	***	÷	*	÷	*	÷	*	÷	**	÷	**	÷	***
Maternal Substance Use During Pregnancy	Yes No (REF)																
Substantiated Abuse of Child	Yes No (REF)																
Care at Time of Assessment	Currently in care Previously in care (REF)																
Total Number of in Care Episodes	1 2 3 4+ (REF)									•	*						
Total Number of Placements Experienced	1-3 4-6 7+ (REF)			•	*	•	**	•	**								
Length of Time (in Years) Child Spent in Care	<1 1-2 3-4 5+ (REF)																
Level of Statistical Signific: Model 1 model including Model 2 model including Model 3 - model including Model 4 model including rable cells are shaded whe REF = Reference Group PFO = Bettion Filed Gor F, PFA = Voluntary Placemen	ance: *p<0.05, **p<0.01, *** 3 al children in care with all 3 al children in care with 3 3 al children in care with all 3 al children in care with 2 3 al children in care with De ere data were not available c urbren Crder tr Agreement	p <0.001 factors include velopmental E factors include velopmental E yr not applicab	ed Disability fact ed, by Indige Disability factu Ie.	or excluded nous Group or excluded, t	oy Indigenou	s Group											

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	2	lodel 1	Mod	lel 2	Mode	13	Mode	14	Model 3	Model 4	юW	del 3	Mod	el 4
Factor Level	Direction (Association	of Statistical	Direction of Association	Statistical Significance	Direction of	Statistical D	Direction of	Statistical I	Direction of Statistical Association Significance	Direction of Statistical Association Significance	Direction of Association	Statistical	Direction of Association	Statistical
Area-level SES of Child		**				*		**			ASSOCIATION	and intratice	Association	andinication
Area-level SES of School	→ +	* ***	→ ÷	* *	⇒÷	*	→ -	**						
Unid's Age (in Months) Tediconous Crouis of Child Not Determined	•	* *	•	 	•		•							
Indigenous shoup of Unital Nort-Determined Nort-Indigenous Metis First Nations (non- First Nations (Statu	tatus) status) s) (REF)	*	÷ (*										
Child's Legal Status while in Apprehension or P	FFO													
Care Other													_	
remporary ward VPA														
Permanent Ward (REF)													
Kinship Placement Yes No (REF)														
Reason for Being in Care Abandonment											Ŷ	*	÷	*
Conditions of pare Conditions of child	(c))II													
Conduct of parent Other	s)													
Conduct of child (F	EF)													Ĩ
Age (in Years) at Entry Into 1-4 Care 5-9 <1 (REF)					→	*								
Small for Gestational Age Missing/No Categ at Birth Yes No (REF)	би													
Mother's Age (in Years) at 12-17 First Birth >18 (REF)														
Sex Male	→	***	÷	***	÷	***	÷	***						
Urban School Yes						l		Ι			÷	*	÷	*
No (REF) Eamily Paraint of Income Var					•	*	•	*			,	**	-	**
Assistance No (REF)					ł		t.				•		•	
Diagnosis of a Yes Developmental Disability No. (REE)	>	**									ት	*		
Diagnosis of a Mental Yes	÷	***	÷	***		ľ		ſ			*	***	÷	***
Disorder No (REF)						T		T						
Maternal Substance Use Yes During Pregnancy No (REF)														
Substantiated Abuse of Yes Child No (REF)														
Care at Time of Assessment Currently in care Previously in care (REF)				÷	**	÷	**						
Total Number of in Care 1 Episodes 3											*	* *	* *	* *
4+ (KET) Total Number of 1-3											÷	*	÷	*
Placements Experienced 4-0 7+ (REF)														
Length of Time (in Years) <1 Child Spent in Care 1-2 3-4 (REF) 5+ ((REF)														
Level of Statistical Significance: *p<0.05, * Model 1 – model including all children in Model 2 – model including all children in	'p <0.01, ***p<0.001 care with all factors	included	forter evelue	7										
Model 3 – model including all children in	care with all factors	included, by In	digenous Gro	n dn										
Model 4 – model including all children in Table cells are shaded where data were no	care with Developm of available or not a	ental Disability	factor exclud	ed, by Indiger	nous Group									
REF = Reference Group														
PFFO = Petition Filed for Further Order VPA = Voluntary Placement Agreement														

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		Mod	el 1	Mode	el 2	Mode	13 FIISUNA	Mode	4	Mode	13 Mer	Mode	14	Mode	in 3	genous Mode	14
Factor	Level	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical [Direction of	Statistical [Direction of	Statistical	Direction of	Statistical I	Direction of	Statistical	Direction of	Statistical
Area-level SES of Child		Association	Significance	Association	Significance	Association	ignificance	Association	ignificance	Association	ignificance	Association	significance	Association	oigniticance	Association	significance
Area-level SES of School																	
Child's Age (in Months)		•	***	•	***	*	***	*	***	*	***	÷	***	÷	**	*	*
Indigenous Group of Child	Not Determined Non-Indigenous Metis First Nations (non-Status) First Nations (Status) (REF)	~ ~	* *	+ +	* **												
Child's Legal Status while in	Apprehension or PFFO					-						-					
Care	Other Temporary Ward VPA Permanent Ward (REF)																Ľ
Kinship Placement	Yes																
Reason for Being in Care	No (REF) Abandonment					÷	*	÷	*								
	Conditions of parent(s) Conditions of child					• «	**	• «	*								
	Conduct of parent(s) Other Conduct of child (REF)					~ ~	* *	~ ~	* *								
Age (in Years) at Entry Into	1-4 5-9																
Care	≥10 <1 (RFF)																
Small for Gestational Age at	Missing/No Category																
Birth	Yes No (REF)																
Mother's Age (in Years) at First Birth	12-17 ≥18 (REF)			÷	*							÷	*				
Sex	Male Female (REF)	÷	***	÷	***	÷	***	÷	***					÷	***	÷	***
Urban School	Yes No (RFF)																
Family Receipt of Income	Yes																
Assistance	No (REF)	-				-				-	:			-			
Diagnosis of a Developmental Disability	Yes No (REF)	÷	* * *				***			÷	*			÷	*		
Diagnosis of a Mental Disorder	Yes No (RFF)	÷	***	÷	***									÷	***	÷	***
Substantiated Abuse of	Yes																
Care at Time of Assessment	No (KEF) Currently in care			ľ	T			Ì					T	Ī	Ī	Ī	
	Previously in care (REF)																
Total Number of in Care Episodes	1 2 34+(RFE)	(* *	* * *	* * *	~ ~ ~	* * *		* * *								
Total Number of Placements Experienced	5 1-3 4-6 7+ (DEE)			÷	*	÷	**	÷	**							→	*
Length of Time (in Years) Child Spent in Care	 (Nuc) 1 1-2 3-4 -4 <																
Level of Statistical Signific	5+ (REF) cance: *p<0.05, **p<0.01, *:	*p<0.001															ĺ
Model 1 – model includir Model 2 – model includir	ng all children in care with a ng all children in care with [ll factors inclu evelopmenta	uded al Disability fa	ictor excluded	_												
Model 3 – model includir Model 4 – model includir	ng all children in care with a ng all children in care with [ll factors inclu evelopmenta	uded, by Indiç al Disability fa	genous Group ictor excluded	l, by Indigena	us Group											
Table cells are shaded wh REF = Reference Group	nere data were not available	or not applic	cable.														
PFFO = Petition Filed for VPA = Voluntary Placeme	Further Order ent Agreement																
Appendix Table 3.7: Regression Analysis of Factors Associated Earning 8+ Credits in Grade 9, by All Model Types 1996/97 – 2011/12

					-		First Na	tions			Met	.9			Non-Indi	denous	
		Moc	iel 1	Mod	el 2	Mode	13	Model	4	Mod	93	Mod	14	Mode	е Э	Mode	14
Factor	Level	Direction of Association	Statistical Significance	Direction of Association	Statistical Significance	Direction of Association	Statistical E	Direction of Si	Statistical [Direction of	Statistical I	Direction of Association	Statistical I	Direction of Association	Statistical Significance	Direction of Association	Statistical Significance
Area-level SES of Child		÷	***	÷	***				6						6		6
Area-level SES of School		÷	***	÷	***	¢	***	¢	***	¢	***	¢	***	¢	***	÷	***
Child's Age (in Months)	-	÷	***	÷	***	÷	***	÷	***	÷	***	÷	**	÷	***	÷	***
Indigenous Group of Child	Not Determined Non-Indiaenous	(***	(***												
	Metis	•	***	• ←	***												
	First Nations (non-Status) First Nations (Status) (REF)	÷	*	÷	*												
Child's Legal Status while in	Apprehension or PFFO	→	***	→	***	,	***	,	***	÷	*	÷	**				
Care	Other	→ -	* :	→ -	* :	→ -	*	→ -	* :					-	:	-	:
	Temporary Ward	→ →	***	→ →	***	→ →	* * *	→ →	* * *	7	*	7	**	→ →	** **	→ →	***
	Permanent Ward (REF)	•		•		•		•		•		•		•		•	
Kinship Placement	Yes Nie (BEE)	÷	***	÷	***					÷	*	÷	*	÷	***	÷	***
Reason for Being in Care	Abandonment	÷	***	÷	***	÷	**	÷	**	÷	*	÷	*	÷	***	÷	***
0	Conditions of parent(s)	• ←	***	• ←	***	• ←	**	• ←	**					•	***	• ←	***
	Conditions of child	€ (***	((***	(**	((**	((* •	•	,	•	***	•	***
	Conduct of parentics	+ ←	***	÷€	***	+ ←	**	÷ (*	÷		÷		÷ (***	+ ←	***
	Conduct of child (REF)																
Age (in Years) at Entry Into	1-4)	**	•	**												
Care	≥10	• →	***	• •	***	•	***	•	***					•	*	•	*
	<1 (REF)																
Small for Gestational Age at	Missing/No Category									÷	*	÷	*				
Birth	No (REF)																
Sex	Male	^	***	÷	***					÷	**	÷	**	,	***	•	***
Ithan School	remale (KEr) Vas							I								I	
	No (REF)																
Family Receipt of Income	Yes																
Assistance Disconceis of a	NO (REF) Vor	Ţ	***			7	**							7	**		
Developmental Disability	res No (REF)	•	e e e			•	e e							•	e e		
Diagnosis of a Mental	Yes	•	***	÷	***									•	***	÷	***
Disorder	No (REF)																
Substantiated Abuse of Child	Yes No (RFF)																
Care at Time of Accessment	Currently in care								I								
	Previously in care (REF)																
Total Number of in Care	1 2	€ €	***	(***	÷	***	÷	***					~ •	* *	(•	* *
Episodes	1.00	-		-										-		-	
Total Nitrobas of Disconcesso	4+ (REF) 1-2	-	**	-,	*					,	**	,	*				
Experienced	с-т 4-б	•		•	:					•		•	:				
	7+ (REF)																
Length of Time (in Years)	^1 1-7																
Child Spent in Care	3-4													÷	*		
and the first of the first of the second	5+ (REF)	***0 001															
Level of Statistical Significs Model 1 – model including	nce: *p<0.05, **p<0.01, * all children in care with a	**p < 0.001 all factors inclu	nded														
Model 2 – model including	all children in care with [Developmenta	I Disability fa	ctor excluded	-												
Model 4 – model including	all children in care with [Jevelopmenta	al Disability fa	ctor excluded	i, by Indigend	ous Group											
Table cells are shaded whe RFF = Reference Group	re data were not available	e or not applic	cable														
PFFO = Petition Filed for F	urther Order + Acreament																

TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER

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Table 3.8:	
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						First Na	ations			Ň	tis			Non-Ind	igenous	
	Mo	del 1	Moc	łel 2	Mod	el 3	Mode	14	Mod	el 3	Mod	el 4	Mod	lel 3	Mod	el 4
Factor	Direction of Association	Statistical	Direction of Association	Statistical Significance	Direction of Association	Statistical	Direction of Association S	Statistical Statisticance	Direction of Association	Statistical Significance						
Area-level SES of Child	÷	**	÷	**	÷	**	÷	*								
Area-level SES of School	÷	***	÷	***	÷	***	÷	* * *	÷	**	÷	***	÷	***	÷	* * *
Child's Age (in Months)	¢	***	÷	***	¢	***	÷	***	÷	***	¢	***	¢	***	¢	***
Indigenous Group of Child Not Determined Non-Indigenous	+ +	***	‹ •	***												
Metis	- (*	÷	*												
First Nations (non-Status) First Nations (Status) (REF)																
Child's Legal Status while Apprehension or PFFO	÷	***	÷	***	÷	**	÷	**			÷	*			÷	*
in Care Other	÷	***	(***	.	* +	(***	÷	***	÷	***			_	
lemporary Ward VPA			÷	ĸ	÷	ĸ	÷	ĸ								
Permanent Ward (REF)																
Kinship Placement Yes No (REF)	÷	***	÷	***	÷	**	÷	**	÷	*			÷	***	÷	* * *
Reason for Being in Care Abandonment																
Conditions of parent(s)	÷	***	÷	***	÷	**	÷	**					÷	***	÷	***
Conditions of child	(* :	÷	*	.	* :	(•	* 1					•	***	•	
Conduct of parent(s) Other	÷	***	(•	* *	← €	* *	€ €	* *					÷	***	÷	***
Conduct of child (REF)			-		-		-									
Age (in Years) at Entry Into 1-4																
Care 5-9			-	:												
≥10 <1 (REF)	•	***	¥	**												
Small for Gestational Age Missing/No Category	÷	*														
at Birth Yes No (REF)																
Sex Male	÷	***	÷	***	÷	***	÷	***	÷	*	÷	*	÷	***	÷	* * *
Female (REF)	-		-	:					-				-	:		;
Urban School Yes No (REF)	÷	***	÷	**	÷	*			÷	*	÷	*	÷	**	÷	**
Family Receipt of Income Yes	•	***	^	***	÷	*	÷	*					÷	**	•	**
Assistance No (REF)																
Diagnosis of a Yes	÷	***			÷	*							→	***		
Developmental Disability No (KEF) Diamocic of a Mental Voc	-	***	-,	***	,	***	-7	***	,	***	,	***	-	***	,	***
Disorder No (REF)	•		•		•		•		•		•		•		•	
Substantiated Abuse of Yes																
Child No (REF)																
Care at Time of Currently in care Assessment Previously in care (REF)					÷	*	÷	*								
Total Number of in Care 1	¢	***	÷	***	÷	*	÷	*								
Episodes 2	• (*	÷	*	•											
. 3 4+ (RFF)																
Total Number of 1_3																
Placements Experienced 4-6							÷	*								
			7	,											7	,
Length of Time (in Years) <1 Child Spent in Care 2.4			• •	*	→ -}	* *	→ →	* *							•	
5+ (REF)					•		•									
Level of Statistical Significance: *p<0.05, **p<0.01,	., ***p<0.001															

Model 1 – model induding all children in care with all factors included Model 2 – model induding all children in care with Developmental Disability factor excluded Model 3 – model induding all children in care with Developmental Disability factor excluded Model 4 – model induding all children in care with Developmental Disability factor excluded, by Indigenous Group Table cells are shaded where data were not available or not applicable. FFG = Petition fail of for further Order VPA = Voluntary Placement Agreement

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	6	7	Curdo 2 D	andina ²	N C open	20000	Curde 7 Mas	houndier ³	Cuede 7 Enc	Canome a	Cuedo o Dor	dine 0. Muising	Curdo O	Cup dite 4	Link Cake	I Completion ⁴
	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical	Direction of	Statistical
Factors Level	Association	Significance	Association	Significance	Association	Significance	Association	Significance	Association	Significance	Association	Significance	Association	Significance	Association	Significance
Area-level SES of Child									¢	**			÷	***	÷	*
Area-level SES of School									÷	*			÷	***	÷	***
Child's Age (in Months)	÷	**					•	***	•	***	÷	***	•	***	÷	***
Indigenous Group of Child Non-Hidigenous Non-Indigenous First Nations (Retus) First Nations (Status)	•	**		**	÷	*	÷	***	+ +	* ***	+ +	* * *	****	***	* * *	* * *
Child's Legal Status while in Care Chprehension or PFFO Temporary Ward PPA					**	• •	→→	* *					****	* * * *		***
Kinship Placement Yes No (REF)													÷	***	÷	***
Reason for Being in Care Chandomment Conditions of child Conduct of Parent(s) Other Conduct of Parent(s)			****	* * * * *									****	***	***	* ** * *
Age (in Years) at Entry Into Care 1-4 ⁸ 5-9 > 10 ⁶			_				•	*					**	***	•	***
<1 (REF)																
Small for Gestational Age at Birth Missing/No Category No (REF)			•	*											÷	*
Mother's Age (in Years) at First Birth 12-17 ≥18 (REF)			÷	*												
Sex Male Female (REF)	÷	***	÷	***					÷	***	÷	***	÷	***	÷	***
Urban School Yes No (REF)															÷	***
Family Receipt of Income Assistance Yes No (REF)	÷	*													÷	***
Diagnosis of a Developmental Disability Yes No (REF)	÷	***	÷	***	÷	***	÷	N.N.N.	÷	**	÷	***	÷	***	÷	***
Diagnosis of a Mental Disorder Yes No (REF)	÷	***	÷	***	÷	***	÷	***	÷	***	÷	***	÷	***	÷	***
Maternal Substance Use During Yes Pregnancy No (REF)																
Substantiated Abuse of Child Yes No (REF)																
Care at Time of Assessment Currently in care Previously in care (REF)																
Total Number of in Care Episodes 1 2											÷+	* *	÷+	***	.	* *
3 4+ (REF)																
Total Number of Placements 1-3 Experienced 7- (REF)	÷	*											÷	*		
Length of Time (in Years) Child Spent in <1 1-2 Care																
Proportion of Total Days Absent Missing	÷	:														
>0%10% 10%20% 20%30% 23%30%	****	* 1 1 1														
0% (REF) Level of Statistical Significance: *p <0.05 **p<0.01 ***p<	<0.001															
a Age range is 1-2 for EDI	_	a Age range	is 3-4 for EI	DI and not a	pplicable for	both Grade	3 outcomes			U	Age range is	: <5 for EDI and bo	oth Grade 3 ou	tcomes		
¹ Academic Years 2005/06, 2006/07, 2008/09, and 2010/1:	1	2	Academic '	Years 2009/:	10 - 2011/12		e	Academic Y€	ars 2007/08	- 2011/12			⁴ All Academ	ic Years 1996	/97 - 2011/12	
Table cells are shaded where data were not available or	not applicable	ai														
REF = Reference Group PFFO = Petition Filed for Further Order																
VPA = Voluntary Placement Agreement																

TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER DEFENDER TRAILBLAZER CHALLENGER VISIONARY INNOVATOR ADVENTURER REBEL PIONEER CREATOR EXPLORER CREATOR EXPLORER CREATOR EXPLORER DEFENDER CREATOR EXPLORER DEFENDER CREATOR EXPLORER DEFENDE

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