AVOIDING THE SUMMER SLIDE: CAN DAY CAMPS CLOSE THE INCOME-EDUCATION GAP?

by

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Abstract

Children living in poverty often experience lower educational outcomes than the general population. A cycle of poverty can result, where low education levels pass from generation to generation. Up to 65% of the disparity between lower and higher income students is attributable to the Summer Learning Loss (SLL). Low-income students generally score lower in the fall on standardized tests than they did in the spring before. In contrast, middle and higher income students maintain or increase their test scores over the summer.

Research indicates that summer day camps can reduce SLL when specific strategies and certain conditions are present. Case studies illustrate various techniques that have proven effective at reducing SLL. Interviews with academics that have expertise in the field and a review of relevant literature contribute to recommendations for the City of Windsor, Ontario to implement at municipal day camps to reduce SLL.

Keywords: Education; Poverty; Low-Income; Summer Learning Loss; Summer Camp; Social Policy
Executive Summary

Children living in poverty often experience lower than average life outcomes including lower high school completion, lower lifetime earnings and increased re-entry into poverty. One reason for this is that disparity exists between low and high-income students in the school setting. Up to 65% of the disparity in standardized test scores between low and high-income students is attributable to learning losses experienced by low-income students during the summer months. Children who come from low-income families generally lose learning over the summer while middle and higher-income children maintain or gain learning.

Explanations for the summer learning loss (SLL) include: the limited ability of parents who have low education levels to teach their children; lack of financial resources such as books, computers and the ability to pay fees for summer programs; limited time to commit to travel to and from summer programs; and less access to trips and other enriching summer experiences. While summer schools do not appear to be effective at reducing SLL among low-income students, summer camps present an opportunity for education and recreation in the same setting.

The current study focuses on municipal summer day camps in the city of Windsor, Ontario. In an effort to reduce summer learning loss among camp participants, I conduct a case study to determine how summer day camps can reduce SLL among low-income students. I study three day camps that were effective at reducing SLL among participants as compared to a control group. Based on these cases, I develop six policy options: 1) maintain the status quo; 2) an enhanced status quo with an educational lens; 3) utilize volunteer tutors to read with participants; 4) involve parents in a weekly community evening; 5) implement standardized academic
curriculum with credentialed teachers; and 6) implement standardized curriculum with student teachers.

Following analysis of these options based on a set of four criteria, I recommend that the City of Windsor implement the enhanced status quo option. This option involves choosing weekly field trips that have an educational focus, such as science centres, art museums, nature observatories and historical locations. Weekly themes are also selected based on their relation to the field trip, and participants take part in activities throughout the week that include scavenger hunts, reading about the theme and participating in activities related to the theme. In addition, by collaborating with the Windsor Public Library, books are available so that participants can read during ‘down time’, and older children are encouraged to read with younger children. Finally, instituting a camp challenge where participants receive a gift certificate for reading a designated number of books throughout the summer provides a goal and incentive for reading when school is not in session.

In addition to implementing the enhanced status quo, I recommend that the city of Windsor assess the need for a free lunch program among participants, as poor nutrition can hinder cognitive development. I also recommend that an advisory committee that includes teachers, camp staff, parents and other stakeholders oversee the planning of the day camps. Finally, I encourage the city of Windsor conduct pre and post-testing of participants in their camp to determine the extent of SLL in Windsor, and the effect that implementing the enhanced status quo has on SLL. These strategies combined can reduce SLL in the City of Windsor.

Opportunities to strengthen this study involve collecting Canadian data with regard to SLL, as currently no studies have attempted to identify if SLL is an issue in Canada and consulting stakeholders such as day camp staff, participants and their parents to strengthen both the problem definition and the analysis of options.
To the people of the City of Windsor; in particular my family, friends and colleagues. Your strong work ethic and unwavering spirit have inspired me to achieve my goals.
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Introduction

Canadians living in poverty often experience negative outcomes such as poor health, lower expected lifetime earnings and lower educational outcomes (Shiell and Zhang, 2004; Valletta, 2004; Finnie, 2000; Raphael, 2000). These outcomes can contribute to lifelong and intergenerational poverty (Dahl and DeLeire, 2008). Children are particularly susceptible to these impacts and poverty in early childhood can continue to affect a child throughout her life (Duncan et al., 1998, Juel, 1988). One example of this is in education.

There is a large disparity between the achievement scores based on standardized tests of low and high-income children (Steinbrickner and Steinbrickner, 2003; Acemoglu and Pischke, 2001; Duncan et al., 1998). Lower high school completion rates and lower post-secondary education enrolment may result among disadvantaged children (Alexander et al., 2007). Up to 60% of this disparity is attributable to differences between low and high-income children’s learning during the summer months (Alexander et al., 2007; Downey et al. 2004, Entwisle and Alexander, 1992, Heyns, 1978). Reasons for this include limited access to educational resources, parents’ inability to stimulate their children cognitively and lack of participation in educational opportunities such as trips to museums (Chin and Phillips, 2004). The current study addresses the problem that children from low-income households lose learning over the summer months while middle and high-income children maintain or gain learning according to standardized reading and math test scores.

Studies indicate that summer day camps can address summer learning loss while maintaining a fun and recreational atmosphere (Borman et al., 2009; Capizzano et al., 2007; Chaplin and Capizzano, 2006; Schacter, 2003). In the City of Windsor, Ontario, where the
unemployment rate is over ten per cent (Statistics Canada, 2010) and nineteen per cent of people under the age of 18 are living in poverty (Statistics Canada, 2006), municipal summer day camps may play a role in reducing summer learning loss. Currently, the intention of the camps is not to address summer learning (KII, 20091) and therefore, this study attempts to answer the question: How can summer day camps reduce SLL among low-income students?

This study comprises nine sections. I detail the methodology used to develop and analyze policy options in section two, which include a case study and expert interviews. In section three, I provide an overview of the cases used in the case study and detail my analysis of the cases. Section four presents the six policy options that I developed based on the literature review and case study. I describe the criteria used to analyze the policy options in section five, and in section six I evaluate each of the policy options based on the criteria. In section seven the options are analyzed and tradeoffs are examined, which lead to the recommendation presented in section eight. I conclude the study in section nine with opportunities for future research and considerations regarding the current study.

1 KI represents Key Informant
1: **Background:**
**Summer Learning Loss and the Role of Summer Day Camps**

This study develops options for the city of Windsor, Ontario to implement at their municipal summer day camps in an effort to reduce the summer learning loss (SLL) experienced by children living in poverty. This is important because poverty can result in poor educational outcomes throughout one’s lifespan. It demonstrates that a large portion of the disparity between low and high-income students is attributable to SLL. The following section provides a review of the relevant literature regarding poverty and educational outcomes, SLL, and opportunities to address the summer learning gap that exists between low and high-income students.

1.1 **Poverty and Educational Outcomes**

Poverty negatively affects many aspects of life. In Canada, evidence suggests that poverty contributes to lower educational outcomes (Valletta, 2004), poor health (Raphael, 2000), diminished expected lifetime earnings (Shiell and Zhang, 2004) and higher probability of re-entry into low-income (Finnie, 2000). These effects often have a long-term impact in the case of children. This is partially because a critical period exists during early childhood, up to age 8, where cumulative poverty has a stronger influence on cognitive ability than it does later in life (Guo, 1998).

Research indicates that lower cognitive ability at a young age can contribute to poor educational outcomes over time. For example, students who perform below average in reading in the first grade are 88% more likely to be poor readers in the fourth grade if no targeted interventions to improve academic performance occur (Juel, 1988). Further, family income from birth to age five has a much greater impact on cognitive development than income later in
childhood and adolescence (Duncan et al., 1998). During the stage between birth and age five, a $10,000 increase in family income can result in nearly a full year increase in schooling completed.

Poverty may not have a direct effect on intellectual development, as parenting style and cognitive stimulation in the home can strongly mediate the impacts (Guo and Harris, 2000). In Guo and Harris’ work, cognitive stimulation was the primary factor in mediating cognitive impairment; a secondary factor was parenting style. Other factors, such as household characteristics and health had lower mediating effects. These findings are particularly relevant to the current study because recommended policies can address the effects.

As described above, one particular area of concern is education. Children from low-income families routinely have lower achievement scores in school than children from higher income families (Steinbrickner and Steinbrickner, 2003; Acemoglu and Pischke, 2001; Duncan et al., 1998). Because of the presence of a cycle of poverty, whereby parental education levels predict family income, this disparity makes children particularly vulnerable to remaining in the cycle throughout their life span, and has the potential for a generational impact. For example, Dahl and DeLeire (2008) compared fathers’ lifetime earnings with the earnings of their children at a time where annual earnings represent a proxy for lifetime earnings. They found that a ten per cent increase in father’s earnings resulted in a three to six per cent increase in son’s earnings and a zero to three per cent increase in daughter’s earnings. Moreover, an increase of ten percentiles in a fathers’ position on the income distribution resulted in a three per cent increase in son’s position and a one per cent increase in daughter’s earnings. Finally, their results indicated that there was very little mobility for children whose fathers were below the 10th percentile of the income distribution.

Ma and Klinger (2000) found that socio-economic status (SES) had a significant positive impact on reading, math, science and writing scores in a sample of children from New
Brunswick. In this study, SES had an effect that ranged from 13 to 18 per cent across all four subject areas. The effect was primarily due to parental attitudes toward education and the authors found that low academic achievement correlated with negative family beliefs about schooling and learning. This indicates that some of the disparity between high and low-income students is a result of social stigma and that working with parents to encourage positive beliefs may be effective at limiting that disparity.

The research cited above clearly indicates that low-income students experience lower educational outcomes, resulting in negative lifetime outcomes, than students from higher income backgrounds do. Therefore, the current study intends to identify ways to address the disparity between low and high-income students’ educational outcomes. The summer learning loss, described below, is one explanation for this disparity.

1.2 Summer Learning Loss

Summer learning loss (SLL) refers to the phenomenon, predominately studied in the United States, of students from low-income backgrounds losing learning over the summer months based on standardized test scores while those from middle and higher-income backgrounds maintain or increase learning (Downey et al. 2004, Entwisle and Alexander, 1992, Heyns, 1978). As shown in Figure 1, 65% of the total disparity between low SES high school dropouts and high SES college attendees relates to the disparity attributed to the summer learning gap (Alexander et al., 2007). In Alexander et al.’s study, 26.5% of the entire disparity was attributable to differences shown in tests at the beginning of first grade (kindergarten was not mandatory at the time of this study) and the remaining 8.5% was attributable to differences in test scores during the school year.
Downey et al. (2004) found that the 1000 schools in a nationally representative study of 20,000 students had a minimizing impact on the learning gap that student’s experience (Figure 1). This is because even though disparity exists between schools in lower and higher income neighbourhoods (particularly in the US where responsibility for educational administration is local rather than at a state or national level), the disparity between low and high-income homes is greater.

Schools in different neighbourhoods can be unequal with respect to educational attainment; schools that serve primarily low-income students tend not to perform as well on standardized tests or other measures of school success whereas schools whose students are primarily higher income often perform well. Given that, the disparity between households is far greater than the disparity between schools, since schools usually provide a safe and educational place for children to spend their day, while not all homes and neighbourhoods do. For this reason, schools can serve a mediating function while they are in session.

Figure 1 Disparity between High and Low-Income Students, by Type

Data from Alexander et al., 2007
The inequality grows during the summer months, as evidenced by greater disparity in fall tests than existed in the spring. In literacy, mathematics and general knowledge, low-income students fare worse in September than they did in June. For example, low income students in a US study using nationally representative data lose a .09 standard deviation (SD) on standardized literacy test scores during the summer, while middle income students maintain their test scores and middle-high and high income students gain a .07 SD (Burkam et al., 2004). This problem is particularly salient because low-income students start school generally with lower cognitive advantage than their higher income counterparts (Alexander et al., 2007). This disadvantage is due in part to less exposure to cognitively stimulating experiences during the formative years before schooling begins.

In terms of educational attainment, Alexander et al. (2007) found that sixty two percent of high-income students enrolled in college preparatory programs compared to only thirteen
percent of low-income students. The same study found that more than a third of low-income students were permanent dropouts (still lack high school completion at age 22) while only three percent of the high-income group fell into this category. The authors conducted a decomposition exercise for subsets of youth who had aligned social backgrounds and later experiences (non-college low SES youth and college track high SES youth first, then low SES dropouts and high SES college attendees). Findings indicated that more than half of the disparity was attributable to SLL in elementary school. More importantly, this study found that low-income students are favoured in terms of winter gains, meaning that low-income students actually gain more learning than higher income students during the school year (Alexander et al., 2007).

The SLL is primarily attributable to SES. Disadvantaged students from diverse ethnic backgrounds and different genders appear to lose learning in the summer at the same level, which indicates that SES is the predominant predictor of SLL (Alexander et al., 2007). There are indicators that SLL has a more detrimental effect for low-income African American students, as their test scores do not increase as much during the school year as low-income students from other backgrounds (Alexander et al., 2007). Whether there is disparity among low-income students with varying SES backgrounds, such as the very poor versus the working poor, is unclear. The current study focuses solely on SES as a predictor of SLL, and looks for opportunities to reduce SLL that would be effective for children from various ethnicities and genders.

1.2.1 Reasons for the Summer Learning Loss

Explanations for the decrease in test scores over the summer months exist. They include higher income children having more enriching learning opportunities available such as parents who have completed more education and are able to support the child’s learning in the summer, access to better quality summer programming and increased access to and more effective
resources like computers and computer programs, flash cards, books and other educational materials (Chin and Phillips, 2004).

Entwisle et al. (1997) found that as socio-economic status increased, families allocated more of their finances toward educational opportunities for their children. Studies have also indicated that if teachers indicate to parents that their children require help with reading or math, and particularly if the teachers make suggestions for helping them, parents are more likely to increase involvement in their child’s educational activities (Drummond and Stipek, 2004). This is because low-income parents do not always perceive their role as educators, and therefore are not aware that they can contribute to their child’s educational pursuits outside of school time.

Chin and Phillips (2004) found that both low and high-income parents had high aspirations for their children, however higher income parents were able to make these aspirations more attainable. Lower income parents experienced difficulty not only covering the financial cost of sending their children to summer programs such as music lessons and camp, but also had trouble with the time and travel costs. Parents from low-income families often work off-shifts, and therefore were unable to get their children to and from camp at the designated times. Some of the activities that the children in Chin and Phillips’ study wanted to attend were across the city, making them inaccessible to families that did not have a vehicle. This indicates that aspirations are not the only issue in lower educational outcomes or summer learning loss, but that other resources such as finances, time and parent’s ability to educate their children all play a role.

Based on the research above, the current study addresses the problem that students from low-income families lose learning according to reading and math test scores over the summer months while high and middle-income students maintain or gain learning. I researched four organized summer facilities for children. These include the City of Windsor summer day camp and three camps that were successful at reducing SLL among a group of low-income students, as compared to a control group.
1.3 Education in Canada

In Canada, provincial governments are responsible for administering education policy. In Ontario, public school from junior kindergarten until grade 12, or age four through eighteen, is free at the point of delivery. As in the US, the Canadian school year revolves around the agrarian system where children needed to be available in the summer months to harvest crops and help with their families (Lavin, 2008; Heyns, 1978). This means that school is in session from late summer or fall (the Tuesday after Labour Day in Ontario) until the end of June (Ontario Education Act, 2009). Certain provisions, such as minimum number of days in school, are common across all schools in Ontario. Local school boards are responsible for making other determinations, although they must abide by the Ontario Education Act (2009) which outlines policies related to hiring of teachers, student discipline and equal rights. According to the Ontario Education Act (2009),

School boards are responsible for:

- determining the number, size and location of schools;
- building, equipping and furnishing schools;
- providing education programs that meet the needs of the school community, including needs for special education;
- prudent management of the funds allocated by the province to support all board activities, including education programs for elementary and secondary school students, and the building and maintaining of schools;
- preparing an annual budget;
- supervising the operation of schools and their teaching programs;
- developing policy for safe arrival programs for elementary schools;
- establishing a school council at each school;
- hiring teachers and other staff;
• helping teachers improve their teaching practices;

• teacher performance;

• approving schools’ textbook and learning materials choices, based on the list of approved materials provided by the Ministry of Education;

• enforcing the student attendance provisions of the Education Act; and

• ensuring schools abide by the Education Act and its regulations.

Beginning in September 2010, over 600 schools offer a full day kindergarten program. The program will be available at more schools across Ontario annually until it is available at all Ontario schools by the 2015 school year. This decision to offer full day kindergarten follows from a report on early childhood education in Ontario which found that high quality early childhood education resulted in improved life outcomes for children (Pascal, 2009). The program is optional, as parents can continue to send their children to half-day kindergarten. It was designed to address the needs of at-risk youth who are starting grade one behind their peers in order to provide them with the opportunity for equal educational outcomes later in life.

The full day kindergarten program is part of a larger early childhood education strategy, which has yet to be unveiled, although some recommendations are included in Pascal’s report (2009). It recommends evidence-supported programming that is play-based, rather than academically focused. The program instructors include a team consisting of an elementary school teacher and an early childhood educator in order to complement the skills of both professions. The introduction of an early learning strategy in Ontario could reduce the disparity between low and high SES students that exists at a young age.

Since 1997, standardized testing has occurred in Ontario schools for students in grade 3 and 6 (Anderson and Jaafar, 2003). A grade 10 test began throughout the province in 2002. The Education Quality and Accountability Office (EQAO) currently tests Grades 3 and 6 students in
reading, writing and mathematics annually, as well as Grade 9s in mathematics. In addition, all Grade 10 students must pass a literacy test in order to graduate from high school. This test in particular may negatively affect outcomes of at-risk students because it creates a barrier to graduation. High school completion rates also decreased significantly the year that the test began and had maintained the decreased level until 2007 (Volante, 2007).

There is a clear lack of Canadian data with regard to the SLL. This may be primarily because to identify SLL and determine its magnitude, testing is required in both the spring and fall of subsequent school years. This practice can be costly and reduces the amount of time spent in class. In addition, teachers in Canada tend to be against standardized testing and often cite the risk of teaching to the test as the reason (Volante, 2004). Teaching to the test occurs when teachers focus solely on improving the test scores of their students rather than enhancing their comprehensive knowledge about the curriculum.

Every year it seems that the kids who are weaker have lost the most in the summer (KI4, 2010).

For the purposes of the current study, I infer that because our academic year is similar and because we have relatively similar approaches to policy with the United States (where the vast majority of studies on SLL have originated) it is likely that SLL is an issue in Canada. Studies to determine if the SLL is present in Canada and the degree to which it exists are necessary. Teachers in the City of Windsor report that low-income students and students who are already falling behind during the school year experience the most dramatic loss over the summer months (KI4, 2010; KI5, 2010).

Other studies have compared Canadian and US educational outcomes to determine similarities and differences. In one example of the similarity between US and Canadian educational policy, Dooley and Stewart (2004) estimated the effect of income on cognition using
the National Longitudinal Study of Children and Youth compared with two studies from the United States that examined the same effect using US national data. The primary difference in study design was that the US studies used the mother’s Armed Forces Qualification Test to determine mother’s ability and that type of data was not available to Dooley and Stewart. Their results showed that “Whatever the impacts of differences in social policy between Canada and the United States, there is no strong evidence of a difference in the income gradient for cognitive child outcomes” (Dooley and Stewart, 2004). This shows that other childhood outcomes appear to be similar across the two countries and until future research determines the existence and impact of SLL in Canada, US data provides the background for the current study.

1.4 Reducing Summer Learning Loss

There are different ways to educate and engage children through the summer. These include summer school, programs at libraries and other community organizations, leaving the children at home, either on their own, with parents, older siblings or a childcare provider, and enrolling the children in summer camps.

A review of the literature indicates that summer schools do not play a significant role in reducing the SLL. This is because they are generally punitive, as they are required for students with poor performance, the length of time is too short, they do not begin until grade three and the curricular programs used are not efficient at teaching skills during a short period of time (Heyns, 1978; Karweit, 1993). In addition, Heyns (1978) found that programs that ran for less than eight weeks were not effective at reducing SLL. Summer school generally runs for 3-6 weeks and involve curriculum similar to the curriculum available in the regular school year (Schacter, 2003). These schools are usually remedial in nature, meaning that students who are performing poorly must attend. The program schedules are much like the normal school day, which reduces the time that summer school students have to participate in leisure and recreational activities. This can
result in poor attendance as students do not want to attend such schools and parents often see the summer months as time off for their children and do not encourage them to attend (EI2, 2010).

Schacter (2003) found that summer schools were not an effective way to increase reading skills of disadvantaged children over the summer months, reporting that positive effects were minimal or nonexistent, due to the factors described above. A summer reading camp that involved many elements of play and field trips had a more positive impact on the cognitive development of the children involved based on standardized tests in the spring and fall compared to the summer school results. The camp not only mitigated the reading declines, but also resulted in reading gains. This indicates that reducing SLL is possible by implementing well-planned and well-evaluated summer programs, and reading programs in particular.

Some researchers have recommended full year schooling as a method to reduce SLL. Full year schooling is very costly, as it requires school boards to hire teachers for the entire year rather than the nine and a half months that they currently work. Schools would also need to pay support staff such as custodians to work throughout the year, another high-cost impact. Modified school calendars are another option to address summer learning, where students have shorter breaks throughout the year rather than one long break during the summer. Not enough quality research is available to determine the impact that this policy change would have on low-income students (Cooper, 2003). Overall, students need to feel that summer programs are fun, and these programs should capitalize on parental and community involvement in order to maximize the effectiveness of the program (Alexander et al., 2001).

Summer camps provide an opportunity to offer a more recreational option than school while still incorporating cognitive development activities. Summer camps can be generalist or provide specialty activities organised around sport, educational curriculum (such as science camp or computer camp), arts or other activities. In general, summer camps offer a greater variety of

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2 EI represents Expert Interview
activities than school does, as they incorporate sports, crafts and games. Studies examining summer camps indicate that they can reduce SLL. Three of these camps are explored further through a case study in an effort to answer the research question “how can summer day camps reduce SLL among low-income students?”

1.5 The Opportunity of Summer Camps

Existing literature informed the development of areas of interest to assist in the data collection process. I reviewed literature to identify potential strategies to alleviate the SLL, and established six primary opportunities in the areas of field trips, physical activity, nutrition and parental involvement. I explore these further in the data collection phase.

1.5.1 Field Trips

In a study of differences in learning about science between 3rd and 5th graders who were randomly assigned to either participating in a science lesson at school or at a nature observatory, both groups were found to experience significant gains based on pre and post-test data (Falk and Balling, 1982). In addition, these gains still existed after thirty days, although the test scores decreased slightly during that time. While there were significant gains in both the control and treatment group, one group of each grade experienced greater gains. In third grade, the students who remained at the school experienced larger gains than the students on the field trip did, and among the fifth graders, the students on the field trip had higher test scores. This indicates that potential policies should include both field trips and additional educational opportunities to maximize learning across age groups.

Burkam et al. (2004) studied students during the summer between kindergarten and grade one. They found that children whose families go on more trips generally experience summer math gains or lower than expected loss (Burkam et al., 2004). These trips include explicitly educational trips such as visits to museums, historical sites and zoos as well as recreational trips like trips to
beaches, amusement parks and concerts. In the current study, field trips are a potential policy option for the City of Windsor to implement at its municipal summer day camps to help reduce SLL.

### 1.5.2 Physical Activity

Engagement in exercise also has implications for educational achievement. Regular exercise can increase brain function, including enhanced memory and improved reading and phonetic abilities in children, including those with learning disabilities (Ploughman, 2008). Summer camps, as mentioned above, offer a unique opportunity to increase the amount of time engaging in physical activity as compared to that available in regular or summer school, as well as compared to what students might be participating in at home.

Children and youth in Canada are using computers more than the recommended 2 hours of screen time a day, according to the Active Healthy Kids Canada 2009 Report Card on Physical Activity for Children and Youth. Children and youth living in poverty report more screen time than their higher-income counterparts do. This high level of screen time also leads to lower physical activity levels among children and youth (AHKC, 2009).

Sallis et al. (1999) conducted a study of 759 fourth grade students over two years. Schools randomly assigned students to one of three groups: specialist taught a sports and play curriculum; classroom teachers taught the same curriculum, or; a control group, which maintained the status quo curriculum. In this study, the schools where the teachers taught the curriculum fared the best on standardized test scores of language and reading. The specialist led group scored better than the control group on reading, but the opposite was true for language. The findings from this study indicate that implementing a physical activity program does not decrease

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3 Information from Canada’s Report Card on Physical Activity for Children and Youth for 2009 has been provided with permission from Active Healthy Kids Canada.
academic achievement, and may in fact increase it. I examine each case for the presence of physical activity.

1.5.3 Nutrition

Nutritional deficiencies can also affect cognitive development. In a study by Kleinman et al. (2002), children who experienced hunger or less than fifty per cent of the recommended daily allotment of essential macro and micronutrients had lower grade point averages (GPAs) than those who enjoyed an adequate nutritional diet. GPAs also increased following the introduction of a universal-free school breakfast program. This suggests that providing a nutritious start the day, which can be difficult for low-income families, can have a positive impact on cognitive development.

In the Canadian National Longitudinal Survey of Children and Youth, 1.2% of the 206 families in the study experienced hunger (McIntyre et al., 2000). A statistically significant (<.001) number of children in households that reported experiencing hunger also experienced poor health, as opposed to those who did not experience hunger. The study also found that parents were likely to deprive themselves of food rather than see their children go hungry. Parents self-reported the data for this survey, which may skew the results because of self-selection or positive reporting bias. Research shows that students who participated in school breakfast programs showed higher academic performance and psychosocial functioning throughout the day (Kleinman et al., 2002) than they had prior to receiving a universal breakfast program. This body of research indicates that a healthy nutritional diet can help improve cognitive functioning, thereby reducing SLL among low-income students.

1.5.4 Parental Involvement

Poverty can negatively affect the social involvement and supervision style that parents adopt with their children (Brooks-Gunn and Duncan, 1997). As described above, parental
involvement is the second most important factor in mediating cognitive development among children living in poverty. Engaging parents in positive activities with their children may influence future interactions, thereby decreasing the negative effects of this factor (Guo and Harris, 2000).

Parents of low-income students who are involved in their academic lives enhance the educational outcomes of their children. For example, parents who attended parent-teacher conferences and volunteered in the classroom while their children were in kindergarten had children with heightened literacy skills (Dearing et al., 2006). In addition, low-income children whose parents played an active role in their education had higher math scores than their peers whose parents did not participate (Izzo et al., 1999). Because of the potential to develop parental involvement, I consider this during the data collection phase. Each of these areas of interest may have an impact on reducing SLL in the City of Windsor. The next section describes the need for policies to address the issue of SLL in the City of Windsor.

1.6 Current Study

This section provides an overview of the current study and describes the decisions related to study design. The City of Windsor is a municipality with growing disparity, primarily because it has one of the highest unemployment rates in Canada at 10.8% (Statistics Canada, 2010). The decline of jobs in the manufacturing sector due to the outsourcing of jobs and declining automotive sales has negatively influenced many families in the city. Laid off people in the manufacturing sector often do not have transferable skills that can assist them in finding long-term employment. For these reasons, and also because the author is from the City, the current study focuses on opportunities for the City of Windsor to reduce SLL through municipally operated summer day camps. I chose summer camps as an opportunity to reduce SLL because they provide the recreational focus that summer schools do not and they are currently operating in the City, therefore the development of a new program is not required.
According to 2006 census data (Statistics Canada, 2006), the City of Windsor has a population of 216,473. Sixteen per cent of these are children (n=33,642) between the ages of 5 and 12 (ibid). Twenty-one per cent of families in Windsor come from lone parent households, compared to sixteen per cent in Ontario (ibid). In 2006, fourteen per cent of the population of Windsor were low-income according to after-tax income. This is higher than the provincial average of eleven per cent. This pattern continues when looking at child poverty: as Figure 3 displays, 18.5% of people under 18 live in poverty according to after-tax income in Windsor, compared to only 13.7% of Ontarians and 11.3% of Canadians in the same age range (ibid). The sections above outline the impacts of child poverty on lifetime outcomes, and therefore the fact that these statistics are much higher than the provincial average make Windsor an appropriate place to direct recommendations to reduce SLL.

The median income in 2005 was $62,877 while the median income for lone parent families is little more than fifty per cent of that, $33,969 (ibid). This is important because single parents are more likely to be the heads of low-income families and are less likely to be able to
stay at home during the summer months to encourage their children’s cognitive development due to having multiple jobs, jobs with off hours or jobs that require a long commute (Chin and Phillips, 2004).

Of the total population 15 and above in Windsor, fifty-four per cent have a high school education or lower, slightly higher than the fifty per cent with a high school or lower education in Ontario (Statistics Canada, 2006). As previously described, many of the jobs that were lost in Windsor were manufacturing jobs, and therefore many people who did not have high school completion, or who had not attended post-secondary education, are currently unemployed.

The municipality provides summer camps at nine locations throughout the City running from the day after school finishes to the day before students go back to school each year. The summer camps are primarily generalist. Specialty camps in sport, arts and other activities are available at certain locations for one-week periods throughout the summer.

Low-income families in the City of Windsor are eligible for a number of subsidies to enhance access to these camps. The subsidies are income-tested and administered through the City, with funding coming from a number of municipally administered programs (KI1, 2009). Because of the subsidies, many students at the City of Windsor summer camps are from low-income families. The City of Windsor was not able to provide data for this, however as a former day camp staff the author can anecdotally attest to this fact. Due to the issues noted above, the current study aims to produce recommendations for strategies to better the educational outcomes of participants in the day camps. By encouraging the implementation of promising practices among lower income children in the summer, low-income students can have the opportunity to experience similar gains to high-income students during the summer months, thereby decreasing the overall disparity between these two groups.

The next section outlines the data collection methods used to develop and analyze policy options for reducing the SLL in the city of Windsor municipal summer day camps, which include
a case study and the literature review conducted in the background section. Following this is an analysis of a case study based on camps that were successful at reducing the summer learning loss. The cases contribute to the development of policy options, which I analyze against a set of predetermined criteria in order to develop a recommendation to the City of Windsor to use at their municipal day camps to reduce SLL.
2: Methodology

This study comprised two stages. First, I conducted a multiple embedded case study where the cases constituted summer day camps, three of which have been successful at reducing the SLL, and the fourth is the base case of Windsor, Ontario. This case study identified options that contribute to the reduction of the SLL. Second, I carried out a review of existing literature and interviews with academics who have expertise in the fields of poverty, education policy and/or SLL to contribute to the development of recommendations.

2.1 Study Design

I selected the case study methodology for three primary reasons. First, the study is explanatory in nature, meaning the intention was to find strategies that reduce SLL. Case studies are beneficial in this type of study because the intention was to identify best practices in programming that lead to desired outcomes (Yin, 2008). Second, because of the finite amount of time available to conduct the study, it was not practical to design a natural experiment that involved control of behavioural events. Therefore, events of interest occur in summer camps that address SLL by design. In this situation, the author may learn from existing examinations of the behavioural events, such as published articles and interviews. Finally, the study focuses on current rather than historical events; therefore, it is contemporary and lends itself to the use of case studies in order to interview people who can address the research questions (Yin, 2008).

2.1.1 Selection of Cases

The four selected cases included the base case of Windsor, Ontario as well as three cases that were effective at reducing the SLL (see Figure 4). I used Yin’s (2008) embedded multiple-
case analysis to select the sample. This technique incorporates a replication approach that provides the basis for testing a theory by examining similar cases to determine if they result in similar outcomes. I chose this approach because of the large volume of research with regard to both SLL and education outcomes. I use the literature to develop a theory, which I analyze to develop policy options to address the problem of SLL (Yin, 2008). In this study, cases that proved effective at reducing the SLL were favoured, which would allow for an examination to determine if there were similar techniques implemented between them that could be used in future programs to have the same impact.

I chose an embedded case study (Yin, 2008) because they allowed for a greater depth in examining the cases. By incorporating interviews, reviews of published evaluations and other relevant documentation, it is possible to paint a fuller picture of the activities of the respective camps and to gain insight into the opinions of staff and reviewers who were present at the camps. While it would have been useful to conduct site visits to observe the camps in person, this was not physically possible due to my location in British Columbia during the time of the study and the limited resources available to me. The documentation and interviews provided useful indirect observations, which were sufficient data.

The selected cases had multiple sources of information available for evaluation. As shown in Figure 4, each of the cases included an embedded unit of analysis such as interviews and review of secondary data, most commonly in the form of journal articles. This method allowed for a comparison of cases to identify strategies that proved effective at multiple camps, and to uncover strategies that were ineffective or that were effective at some camps and not at others. The selection of explanatory cases first based on the availability of pre and post-test data allowed for both a quantitative and qualitative approach to the cases in all but the base case.
2.1.2 Embedded Methodologies

A literature review, a review of secondary data sources and key informant interviews formed the basis of the case studies. For each of the explanatory cases, data collection occurred via publicly available literature and, in all but one case, an interview with staff involved with the planning and/or evaluation of the camp. The base case also provided supplementary documentation in the form of camp records and promotional materials to assist with analysis.

2.1.2.1 Document Analysis

I analyzed publicly available articles regarding each of the explanatory cases. The articles described the pre and post-test results of their summer camp and other information relating to the objectives of the camp, daily schedules, staff qualifications and outcomes although these were not always related to test results. This grey literature identified ways in which the summer camp
addressed issues of educational input and SLL as well as providing evidence of the impact of the camp experience on the summer learning gap. I used the areas of interest described in the background section to analyze the articles and incorporated related information into the interview response table. I then analyzed this data along with interview data (Ritchie and Spencer, 1994).

2.1.2.2 Key Informant Interviews

Program managers and staff participated in semi-structured e-mail interviews to discuss their summer day camps in more detail and provide answers to some of the supplementary research questions. The studies identified in the document analysis provided contact information for program managers, who had the option of extending the interview invitation to staff.

Semi-structured interviews were favoured because they involve open-ended questions and topics that the interviewer feels necessary to cover, but they also offer the opportunity for discussion naturally to move between topics. The interviewer can ask about topics as they come up during the discussion rather than introducing topics in a pre-determined order. In addition, it is possible for the interviewer and interviewee to diverge from the initial interview schedule and explore unexpected topics as they arise, using the themes and prompts as reminders of important points to cover (Taylor, 2005). This allowed the author to incorporate knowledge gained through document analysis and to adjust to issues of relevance to the interviewee accordingly. The interviews enabled an ‘insider perspective’ to emerge with regard to the camp in question (Taylor, 2005).

I chose to conduct e-mail interviews rather than telephone or face-to-face interviews because of both the costly nature of phone and face-to-face interviews, as well as the opportunity in e-mail interviews to provide “thoughtful follow-up to questions because of the time lapse between question cycles” (Hamilton and Bowers, 2006). E-mail interviews also allow time for the participant to consult historical or demographic data and the opportunity for the researcher to
review all of the previous responses and make choices about which complementary questions to ask (Vieville et al., 2005). In addition, conducting an interview via e-mail also allows the key informant to answer the questions when it is convenient for them and to participate in ‘chunks of information giving’ rather than divulging all at one time (McCoyd and Kerson, 2006).

Although I asked each of the key informants to participate in an e-mail interview, only one chose to do so. One key informant declined an interview because of limited time available. Of the other two, one participated in a face-to-face interview and the other in a telephone interview. Studies indicate that the quality of data collected by telephone and by face-to-face interviews is similar, with the largest considerations being scheduling time to meet that is convenient for the interviewee (Rogers, 1976).

The executive assistant of the key informant scheduled the telephone interview, at a time that was convenient for him. I telephoned him and the interview took approximately thirty minutes to complete. The face-to-face interview occurred in the office of the key informant based on her schedule and availability. The office was quiet and the location allowed the key informant to refer to and photocopy documents that were of interest to me. This interview took approximately forty-five minutes to complete.

A copy of the interview schedule is available in Appendix A. I designed the schedule to address the areas of interest described in section 1.5. The intention was for the schedule to be flexible, so that it could be adapted given information gathered through document analysis and updated as the interview proceeded.

I analyzed the key informant interviews first using thematic analysis. After collecting specific data and compiling it in a table, I coded and thematically analyzed the open-ended responses. This type of analysis allowed me to synthesize the information and highlight similarities and differences between the cases (Braun and Clarke, 2006). I used the six steps that Braun and Clarke (2006) describe to conduct the thematic analysis. First, I familiarized myself
with the data by reading over the interview transcripts and took note of my initial ideas. Next, I
generated initial codes, which related to the areas of interest that I identified in the background
section. Following that, I searched for themes. The themes that I chose represented each of the
areas of interest previously identified. I then reviewed the themes and developed a thematic map
for analysis. Next, I reviewed the themes to refine them and chose clear names for them. Finally,
I analyzed the data and prepared the section of the report related to the interviews (Braun and
Clarke, 2006).

2.1.3 Case Study Comparative Analysis

The ‘Framework’ developed by Ritchie and Spencer (1994) for analysis in applied policy
research served as the primary analysis tool for this case study. This four-step process allows for
systematic analysis of qualitative research. The steps are:

- familiarization
- identifying a thematic framework
- indexing
- charting
- mapping and
- interpretation

Familiarization involves reading over all of the data in context in order to gain an
understanding of all of the available information. In order to identify a thematic framework, one
must determine the key issues that are of interest to the study. The next step is to index the data
within the themes, and design a chart and map to provide visual representations of the data.
Finally, the data is interpreted and analyzed systematically to develop policy options (Ritchie and
Spencer, 1994).

As the primary researcher, I was already intimately aware of the contents of the
documents available and interviews that I conducted, however I used this stage to review, in total
all of the research collected for each case. Following this, I began to identify the thematic
framework by identifying key issues and themes for further examination. I created an index based on these themes and issues and used the index in the more thorough data examination.

Next, I reviewed all of the available data for each case, and annotated it according to the framework that I had developed. I then developed a chart that allowed for a visual representation of each of the cases. Each case represented a row of the chart, and each theme represented a column. The chart is in section three. Finally, I created a map (see Figure 5 for sample) for each theme to find associations between the cases, and provide explanations for the success at reducing the SLL.

As part of the mapping exercise, I used an explanation-building technique to help explain the factors that reduce SLL in summer day camps. This technique builds an explanation out of a series of iterations based on a case study designed to replicate a theory (Yin, 2008). I looked at each case in succession to identify similarities and differences between the cases in relation to my areas of interest. By analyzing the three explanatory case studies in relation to each supplementary research question, common identified attributes defined what made a day camp

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**Figure 5 Case Study Analysis Map Sample**

<table>
<thead>
<tr>
<th>Base Case: Windsor</th>
<th>New and Returning Staff</th>
<th>University Students</th>
<th>Case 3: Read to Achieve</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Students</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Theme: Staff**

<table>
<thead>
<tr>
<th>Case 2: BELL</th>
<th>Credentialed Teachers</th>
<th>College Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 4: KindergARTen</td>
<td>Credentialed Teachers</td>
<td>College Students</td>
</tr>
</tbody>
</table>

**New and Returning Staff**

<table>
<thead>
<tr>
<th>Volunteers</th>
<th>College Students</th>
</tr>
</thead>
</table>

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28
effective at reducing summer learning. This technique compared the findings of each incremental case to build a theoretical statement. Table 1 shows the data used for the analysis of each case.
### Table 1 Data Used for Analysis

<table>
<thead>
<tr>
<th>How can summer day camps reduce SLL among low-income students?</th>
<th>Windsor Base case</th>
<th>BELL Case 2</th>
<th>Read to Achieve Case 3</th>
<th>KindergARTen Case 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Available</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Participant Demographics</td>
<td>Some</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Standardized Test Scores</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td><strong>Curriculum</strong></td>
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<td></td>
</tr>
<tr>
<td>Reading Activities</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Physical Activity</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Field Trips</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Adult Involvement</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Characteristics</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Parental Involvement</td>
<td>Yes</td>
<td>Some</td>
<td>Yes</td>
<td>Yes</td>
</tr>
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<td>Partnerships</td>
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<td>Mentioned but unclear</td>
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<td>Limited data</td>
</tr>
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<td>Subsidies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Nutrition</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
2.2 Method for Analyzing Policy Options

The purpose of this study was to identify and recommend options that the City of Windsor can implement at municipal summer day camps to reduce the SLL faced by students living in poverty. After I identified potential policy options through the case study, I consulted academics with expertise in the areas of education policy, poverty and/or SLL to assist in the analysis of options.

2.2.1 Expert Interviews

I interviewed three academics with expertise in the areas of poverty, education policy and/or SLL. I selected these interviewees based on their knowledge of the issues mentioned above, and gave preference to experts from diverse backgrounds. One interviewee was from the field of sociology, another from education and the third from economics. The sociology and economics experts both worked within Universities, while the education expert was a former teacher and a community based researcher.

I chose expert interviews because it was important for the expert to have the opportunity to help define the problems, questions and context involved in SLL (Dexter, 2006). While I had already developed the policy options at the time of the expert interviews, there was still opportunity for re-evaluation if the expert recognized an omission during the interview, or if he or she made a suggestion for improving the policy options (Dexter, 2006). In addition, because the interviewer was a student and the interviewee was the expert, I attempted to establish a courteous and respectful relationship. This involved meeting at a location suggested by the interviewee, wearing business-style clothing, and coming prepared with a script (interview schedule in Appendix C) and timeline for the interview (Dexter, 2006).

I asked each interviewee to participate in a thirty-minute face-to-face semi-structured interview to assist with the analysis of options. I conducted a multiple sorting task (Sixsmith,
to compare each of the policy options systematically and rigorously. This task involves participants receiving index cards with the policy options written on them and asked to sort them based on the identified criteria. The technique is similar to asking participants to rank options; however, it allows a researcher to uncover the considerations that the interviewee took into account when sorting the options in such a way (Barnett, 2004). Because the options in this study are not mutually exclusive, the MST is a useful technique to uncover the strengths and limitations of each option in concert with the other options (Barnett, 2004). A copy of the interview schedule is available in Appendix C. Due to time constraints one of the experts chose to participate by e-mail.

I analyzed the interviews using a scatterplot technique (Appendix D) where each card represented as a row and each sort a column, which I then plotted in a diagram to identify similarities and differences in sorting. This allowed me to determine similarities and differences between the three interviewees, and to begin to recognize patterns (Barnett, 2004). In addition, I transcribed the full interviews and analyzed them using thematic analysis as described in section 2.1.2.2 (Braun and Clark, 2006). Using the MST technique provided both an opportunity for the experts to sort the policy options, but also to elicit background knowledge into their perspective through the discussion of their sort.
3: Case Study Analysis

This section reviews key findings of the case study analysis. Table 1 (see section 2.1.3) shows the data used for analysis. Below is a description of each of the four cases, followed by a comparison of the cases to identify similarities and differences between them. Tables 2 through 6 highlight key findings in each of the five areas of interest from all of the cases, followed by a detailed description of those findings. The comparison, along with the literature review in section one, contributed to the development of six policy options which are described in section four.

The cases selected included the ‘base case’ of Windsor, Ontario, which is not intentionally designed to reduce the SLL. I compared areas of interest in the City of Windsor camp with three cases designed to reduce SLL with studies that established that they were more successful in reducing the summer learning gap than a control group via results on standardized tests. Details about the study design of each explanatory case are in section 3.2. Information on data sources is available in Appendix B.

3.1 Camp Characteristics

The following section outlines the characteristics of each of the camps, including opening times, demographics and location. I analyzed all available data and identified and discussed areas where data was lacking. Table 2 briefly displays the findings regarding demographics, which I discuss more fully with regard to each case below.
### Table 2 Participant Demographics

<table>
<thead>
<tr>
<th>Windsor</th>
<th>BELL</th>
<th>Read to Achieve</th>
<th>KindergARTen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windsor, ON</td>
<td>Boston and New York</td>
<td>Los Angeles</td>
<td>Baltimore</td>
</tr>
</tbody>
</table>
| 9 camps at 60 participants each per day (540 total per day) | 750 students at 3 camps.  
Ages 6-13 (Grades 1-7).  
Average income below $30,000  
>90% minorities (African American or Hispanic)  
40% have fathers who attended college (60% mothers)  
<40% lived with fathers (90% with mothers) | 21 camp participants  
Ages 5-7 (Exiting kindergarten and first grade students)  
Average income $10-24,000 (smaller range for Hispanic people)  
Predominately Black and Hispanic  
35% of community had no high school education  
44% single parent households | 93 camp participants  
Ages 5-6 (Summer between kindergarten and first grade)  
90% eligible for free lunch program  
81% African American, 8% White, 11% other |

### 3.1.1 Base Case: City of Windsor Municipal Day Camps

There are a variety of options for children and youth in Windsor during the summer, such as summer school, programs at local community organizations, spending time in the community, at home or with friends, and day camps administered by the city. The city day camps are the focus of the current study.

The day camps are in session from the day after school ends in June until the day before school starts in September. The camps are open to all city residents between 5 and 12 years old. Nine community centres throughout the city offer the camp. Throughout the summer some locations have specialty camps for one-week periods. The current study focuses solely on the camps that offer ‘general’, not specially targeted provision because the targeted camps are not as
responsive to the recommendation(s) and they serve a different purpose than the general camps.
This means that I did not consider camps that have a specialty focus such as drama or sports in
the current study.

In 2008, a total of 17,610 children and youth participated in the City of Windsor day
camps over the course of the summer when counted across all of the camp locations. This total
does not represent the actual number of participants because many participants attend the camp
over multiple days and some children attend for the entire summer. Participants can pay a daily or
weekly rate for participating in the camp. The City of Windsor does not collect data regarding the
specific demographics of participants, such as race, household characteristics or family income.

The camps are in session from 9:00 AM until 4:30 PM Monday to Friday. Camp staff
work from 7:30 AM until 5:30 PM, however, to facilitate drop off and pick up by parents whose
work schedules do not allow them to pick their children up at the beginning and end of the camp
day. Hot meals are available to participants for a fee. Otherwise, participants bring their own
lunches.

3.1.2 Case 2: Building Educated Leaders for Life (BELL)

Students from Harvard Law School established the BELL program in 1992 in Boston. It
has now expanded to include sites in Washington and New York, although the program
evaluation used to evaluate this case in the current study only describes the camps in Boston and
New York. I chose this camp because its intention is to provide an alternative to direct summer
school, and the design attempted to reduce SLL. The camp aims to improve both academic and
non-academic skills, such as social skills and community involvement, of the students and to
provide them with a safe and supportive environment.

The BELL program is a large-scale summer program in the United States, offered for five
to six weeks during July and August. The program runs from 8:30 AM until 3:00 PM Monday to
Friday, with extended supervision until 4:30 PM available for a fee ($125 for full summer). This extension was not included in the program analysis, and therefore it is unclear what the impact or take-up rate of offering the extension has been. These programs included 750 participants in grades 1 to 7. The camp targets schools with high levels of low-income families for admission to the camp, and teachers are required to provide a form outlining the students’ school performance prior to admission in the camp. Direct advertising in the at-risk schools targets low-income students.

Participants at the BELL camps are generally African-American or Hispanic (90%). Many of the students come from single parent homes, and sixty per cent of the students do not live with their fathers. Forty per cent of the participants’ fathers had not attended college, although sixty per cent of the participants’ mothers had. The average income for the camp was below $30,000 per year.

### 3.1.3 Case 3: Read to Achieve

Read to Achieve is a summer day camp in Los Angeles, California. I chose this camp because the objective was to provide students in the low-income communities of the ‘Los Angeles Empowerment Zone’ (an area of the City recognized as at-risk) with enriching experiences over the summer, which included both academic activities and leisure activities. The camp sought to achieve three goals, which were to improve the vocabulary, reading comprehension, phonics skills and reading achievement of kindergarten and first grade students; to contribute to cognitive, social and emotional development, and; to foster a love of reading among participants.

The Read to Achieve camp was available to up to 160 students in kindergarten and first grade. The camp operated for eight weeks in July and August. The camp operated from 8:15 AM until 4:00 PM each Monday to Friday.
As displayed above, the Read to Achieve camp was available to students in a very low-income neighbourhood. Twenty-one students enrolled in the camp for the entire summer. The participants in the camp were predominately African American and Hispanic, however percentages were not available in the program evaluation. The average income of African American participants was between $15,000 and $24,000 per year. The Hispanic participants reported average incomes of $10,000 to $15,000 per year. A single parent headed 44% of the households in the community, and thirty five per cent of all adults in the community had not completed high school. The camp did not report these statistics with specific reference to camp attendees.

3.1.4 Case 4: KindergARTen

In Baltimore, Maryland, the KindergARTen camp was available to low-income students to enrich their cognitive development during the summer months. Three schools classified as ‘School Improvement Status’ participated in the program in 2004. I chose this camp because it aimed to increase literacy knowledge and skill among participants, to engage the participants, and to blend field trips, athletics, and art and science lessons to build a love of learning.

For six weeks in July and August, participants attended the KindergARTen camp. The camp ran from 8:00AM until 2:00PM Monday to Friday. Ninety students who were entering the first grade the following year attended the camp. Participants in the KindergARTen camp were primarily African American (81%). The majority of the students were as low-income, as evidenced by their eligibility for a free lunch program at school, although the studies consulted provided no concrete statistics for this. The camp did not report data regarding parental education levels and number of children living in single parent homes.
3.2 Standardized Test Results

I chose the cases for the current study primarily based on the availability of standardized test scores for children attending the camps in comparison to a control group was the primary. Unfortunately, the City of Windsor does not collect pre and post-test data on the participants at their camp, however all three other cases have this data available. The following section outlines the findings from BELL, Read to Achieve and KindergARTen.

<table>
<thead>
<tr>
<th></th>
<th>Windsor Base Case</th>
<th>BELL Case 2</th>
<th>Read to Achieve Case 3</th>
<th>KindergARTen Case 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not collected</td>
<td>Statistically significant increase in reading scores compared to control group.</td>
<td>Reading score increase was statistically significant compared to control group.</td>
<td>Statistically significant increase compared to control group on 2 of 5 outcomes. For 3 other outcomes, there was no significant difference.</td>
<td></td>
</tr>
</tbody>
</table>

3.2.1 Case 2: BELL

The program evaluation assessed the performance of the BELL program participants against a control group. Random assignment based on a lottery system determined the treatment and control groups based on the pool of applicants that applied for the summer program. Many more people applied than spaces available the camp, therefore the control group was able to reflect parents who were interested in sending their children to camp, and the issue of parental aspiration was not relevant between the two groups. This was because all parents had an active interest (evidenced by their application) in sending their children to the camp.

The students completed vocabulary and comprehension tests using the Gates-McGinitie reading test. This test is a nationally recognized test and researchers chose the test because the
schools that the participants attended did not use this test during the school year; therefore, the evaluators could be sure that memory did not result in a skewing of the scores. 857 participants total were tested at the beginning and end of camp, although the control group were often tested in their homes rather than at the camp, as they were unlikely to attend the camp for the testing session. Evaluators corrected the scores for the time spent in school prior to and following test administration in the spring and fall.

Overall, participants in the BELL program scored higher than children and youth in the control group on the Gates-McGinitie test, resulting in a positive statistically significant impact of the BELL program at the .05 level. Therefore, participants in the BELL program increased their reading skills more over the summer than students who were in the control group.

3.2.2 Case 3: Read to Achieve

Students in this study represented two groups: camp participants and a control group of students from the same schools. Assignment to the treatment and control groups in this case did not occur randomly. Instead, a group of students who did not apply for the treatment group formed the control group. In addition, parents of students in the control group had the opportunity to participate in training sessions regarding effective reading strategies for working with their children. Parents of the control group received a gift certificate for pizza redeemable if the parents provided a list of 15 books they read with their children over the summer.

Researchers used the ‘Gates-MacGinitie Vocabulary and Comprehension’ tests to assess students’ reading skills. In addition, the ‘CORE Phonics Survey’ and ‘Fry Oral Reading Survey’ provided a broader picture of the effects of the camp. There was a significant difference in reading scores in favour of the control group on the pre-test, and therefore researchers analyzed the post-test data using the pre-test scores as covariates.
Across all measures, participants in the treatment group (camp) significantly outperformed participants in the control group with an alpha < .0001. In addition, on reading and phonics tests students in the control group scored significantly lower in the fall than they had in the spring, supporting the positive impact of summer learning declines among low-income students who do not receive intervention.

3.2.3 Case 4: KindergARTen

In order to recruit the treatment and control group for this study, school principals communicated with students, staff and parents to enrol 45 students per school. A computer randomly selected 30-31 students from each of the three schools to participate in the camp (n=93). These students formed the treatment group. The students who were not selected (35 total) became the control group. Like the BELL program, this eliminated any impact that parental aspirations may have on summer learning, as all parents applied to have their children attend the camp.

Researchers used five tests to compare the treatment and control groups. These tests were ‘Dynamic Indicators of Basic Early Literacy Skills (DIBELS) for letter naming fluency’; ‘DIBELS for phoneme segmentation fluency’; word lists; ‘developmental reading assessment’ (DRA); and dictation. The students in the KindergARTen camp had greater difference between pre and post-test scores on the Word List and DRA test than those in the control group. These differences were statistically significant at the .001 level. The control group, however, had larger increases in letter naming and dictation, although these results were not statistically significant. The difference between the treatment and control group for phoneme segmentation was negligible.
3.3 Curriculum

For the purpose of this study, curriculum encompasses all of the planned programming during the camp. This includes any academic activities, physical activity, and field trips. Table 4 provides an overview of the camp curriculum, and the section that follows is a description of the curriculum design for each of the four cases.

Table 4 Curriculum

<table>
<thead>
<tr>
<th></th>
<th>Windsor Base case</th>
<th>BELL Case 2</th>
<th>Read to Achieve Case 3</th>
<th>KindergARTen Case 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Activities</td>
<td>Not included in camp design.</td>
<td>Standardized curriculum 2 hours per day. Class size averages across the sites ranged from 14 to 19.</td>
<td>Standardized curriculum 2 hours per day. Class sizes &lt;20</td>
<td>Reading curriculum 3 hours per day. 10 students per class.</td>
</tr>
<tr>
<td>Physical Activity</td>
<td>Some form (generally unstructured or active games) included. Frequency not measured (generally daily).</td>
<td>2 of 5 afternoon activities (dance, physical education). 3 activities occur daily.</td>
<td>Included in camp activities and field trips.</td>
<td>Every day after lunch. Includes sport and active games.</td>
</tr>
<tr>
<td>Field Trips</td>
<td>Weekly generally leisure. Include water parks, museum, etc.</td>
<td>Weekly To teach community involvement.</td>
<td>Weekly All educational.</td>
<td>Weekly All educational.</td>
</tr>
</tbody>
</table>

3.3.1 Base Case: City of Windsor

The City of Windsor day camps offer a variety of activities over the summer. Weekly themes provide a basis for changing the curriculum over the weeks that the camp is in session in
order to keep the content fresh. There is a weekly field trip, for example to water parks, art galleries and zoos.

The camps do not intentionally address SLL. Activities often include physical activity, such as the use of gym equipment, active games, and swimming. The design of this activity does not purposely build skill in any area. In addition, participants may participate in crafts, drama, dancing and social time, such as time spent playing at a park. Reading and other academic activities are not generally included in the design of the curriculum.

3.3.2 Case 2: BELL

The BELL camps employed standardized, nationally recognized curricula for the academic portion of the camps, which include math and reading. The camp used culturally sensitive curriculum, such as stories that highlight African-American and Hispanic characters, which a non-profit group designed to supplement the reading portion of the camp. The reading portion of the curriculum implemented the Houghton Mifflin ‘Summer Success: Reading’ program. Houghton Mifflin also published the math curriculum called ‘Summer Success: Math’. Camp staff chose this curriculum because it has a nationally recognized reputation, but also because it responded to teacher’s requests for curriculum that was specifically geared toward summer learning. Students participated in two hours of reading instruction per day.

The remainder of the camp day was devoted to personal, social and community development through leisure and recreational activities. Participants cycled through three activities each afternoon, which included dance, drama, physical education, music and art. These long-term activities provided the participants with enriching cultural, physical and educational experiences, and they led to a culminating activity, such as a dance recital, at the end of the summer. In addition, Fridays included community involvement. In the morning, participants would hear from a guest speaker from their community, who taught the children about the
opportunities that they could have if they continued their education. In the afternoon, participants attended field trips, which included trips to aquariums, museums, sports games and historic sites. These trips taught the importance of community involvement.

3.3.3 Case 3: Read to Achieve

Camp staff chose Open Court curriculum for the reading and phonics instruction, which students participated in for two hours per day. The two-hour block included reading, phonics, and writing. Volunteer tutors used the Howard Street Tutoring Manual to work systematically one on one with students. The tutors attended the camp for two one-hour sessions each week. The relationship between participants and tutors could continue during the school year, to ensure that participants continue to improve their reading performance while in school, and to maintain the rapport that they had established over the summer.

The camp also included activities that had a more recreational focus. Additional community partners, such as local artists, attended the camp to provide these activities to participants. These partners were able to provide participants with examples of future careers and to enhance the quality of teaching the activities. The activities included drama and storytelling; contemporary art; music, and; dance. Field trips were also a weekly component of the camp. Participants went to the symphony, arts festivals, aquariums, a museum of science and industry, an ice age museum, sailing and kayaking, a baseball game and the theatre.

3.3.4 Case 4: KindergARTen

Published articles did not discuss the curriculum used at the KindergARTen camp. Articles did state that credentialed teachers taught reading. Their lessons incorporated language and word study, group reading, guided reading and writing activities. In the afternoon, participants had lunch then participated in guided physical activity. Following this, read aloud time was scheduled.
During the remainder of the afternoon children participated in art and science activities. An art teacher who was also a community artist designed the art activities. The articles did not discuss the curriculum development process for the science activities. Student interns were surveyed following completion of the camp, and reported that they did not feel prepared to lead the reading, science and art curriculum based on the training that they received.

Field trips were also a weekly component of the KindergARTen camp. Participants went on trips to the zoo, aquarium, air and space museum, museum of natural history and to a nature centre. The intention of the field trips was to launch the weekly theme and to provide concrete learning experiences to the participants.

### 3.4 Adult Involvement

Adult involvement, for the current study, involves all facets of the camp where the characteristics of the adults may have an impact. These include staff characteristics, parental involvement and partnerships between the camp and other organizations. Table 5 shows the data collected regarding adult involvement in each of the cases, and a fuller description is below.
<table>
<thead>
<tr>
<th></th>
<th>Windsor Base case</th>
<th>BELL Case 2</th>
<th>Read to Achieve Case 3</th>
<th>Kindergarten Case 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff Characteristics</strong></td>
<td>Range from high school students to University graduates. Mix of new and returning staff.</td>
<td>Public school teachers and teaching assistants (primarily college students).</td>
<td>Credentialed and certified reading specialists and volunteers.</td>
<td>One credentialed teacher and two college student interns in each class.</td>
</tr>
<tr>
<td><strong>Parental Involvement</strong></td>
<td>No parental involvement.</td>
<td>Stated as program element but not clear how it is encouraged.</td>
<td>Weekly ‘campfire’ sessions for families at library with storytelling and drama.</td>
<td>No parental involvement indicated.</td>
</tr>
<tr>
<td><strong>Partnerships</strong></td>
<td>Administered by City of Windsor; no other partners indicated</td>
<td>'An abundance of partners' indicated, but not clear who. Formed by Harvard Law students, partnership still exists.</td>
<td>Partnered by: Non-profit reading program, schools, recreation centre, community foundation, library.</td>
<td>Partnered by: Schools, downtown art gallery, local community artists</td>
</tr>
</tbody>
</table>

### 3.4.1 Base Case: City of Windsor

Staff employed at the camp range in age from high school students to University graduates. While some may have teaching certificates, particularly if they just completed their training, the number of credentialed teachers would be minimal. Hiring staff who span young adulthood allows the organizational to maintain its history, as younger staff often continue to work with the camps in subsequent summers, and can eventually move into leadership roles. The coordinator is responsible for choosing the broad themes of the camp and for coordinating the field trips. This information needs to be available to families when the Activity Guide is released in the spring and day camp staff are not hired in time to be involved in the process. The staff members do plan the day-to-day activities, either by planning as a team or each person planning a
week individually. The policy for the ratio of staff to camper is 1:15, however, for field trips the ratio must decrease to 1:8.

Staff members participate in extensive training prior to beginning work with the children and youth. Those who are new to the day camp must complete High Five – Principles of Healthy Child Development training, a nationally available training program offered by the City of Windsor which is based on curriculum that is taught and evaluated across the country. This training teaches staff the ‘five principles of healthy child development’: a caring adult, friends, participation, play and mastery. It also teaches ways to support positive child development. In addition, new staff must participate in Play Leadership training, which cultivates leaders in recreation programming. Finally, all new staff at the City of Windsor must participate in Customer Service and Diversity training.

All staff, including returning staff, participate in regular training. All staff must have a valid First Aid and CPR certificate, and therefore must participate in CPR and First Aid courses accordingly. All City staff members are also required to participate in Corporate Employees Safety Orientation once every three years.

3.4.2 Case 2: BELL

Primary staff members at the BELL camps are public school teachers. Teachers have a teaching assistant, generally college students. Staff training consists of standardized training models centred on major program areas and handbooks. In addition, staff training includes how to adapt different teaching styles depending on the student and level of ability. Class size varies across the camps; however, the average staff to student ratio is 1:8 at all times during the camp.

The BELL camp asserts in the program evaluation that there are an abundance of community partners, although the studies consulted did not clearly describe these partners. Program staff and evaluators suggest that the positive influence of community partners may be
barrier to replicating the camp in other locations as the partners have provided a lot of support to the camp. In addition, the camp lists one of its program elements as being parental involvement; however, neither the program evaluation nor the interviewee described how parental involvement was encouraged.

3.4.3 Case 3: Read to Achieve

The Read to Achieve program employed credentialed teachers to teach daily reading lessons who were also certified as reading specialists. Two camp counsellors per class to assisted the teachers with instruction. In addition, volunteer tutors participated in the camp. The average age of the volunteers was 49 years. Teachers received curriculum specific training prior to the beginning of the camp. Tutor training used the ‘Howard Street Tutoring manual’, a program manual for teaching at-risk children reading. A non-profit organization recruited the tutors. The researcher coached the tutors during the initial sessions with students. Class sizes were a maximum of 20 students, making a staff to student ratio of 1:7.

A group of community partners, which included a non-profit reading program, three local schools, a recreation centre, a local community foundation and a local library, delivered the camp. Each partner was involved in the design of the camp and contributed relevant assets to the camp, such as classroom space, computers and books.

In addition, participants and their parents were encouraged to attend a weekly campfire session at the local library. In these sessions, each participant received a library card and enjoyed snacks and refreshments. Prominent storytellers led the sessions from the African American and Hispanic communities. The studies consulted did not provide results related to the number of families that attended these sessions.
Case 4: KindergARTen

One credentialed teacher and two college student interns taught each class. Ten students participated in each class. Therefore, the staff to student ratio was 1:4. College interns participated in four weeks of training regarding the reading curriculum. The training included preparation for instruction, assessment, classroom management, parent involvement, first aid and team building. The teachers joined the interns for the final week of training, which provided them with an overview of the curriculum and mentoring strategies. Interns also participated in weekly professional development workshops throughout the duration of the camp. The local schools and a downtown art gallery were partners of the camp. The art gallery exhibited some student works at the end of the summer program.

3.5 Accessibility

For low-income students, there are many barriers to accessing summer programming. One of the primary barriers is funding. The following section reviews the accessibility of each of the cases, which includes access to nutritious food and subsidies to attend the camps. Table 6 below provides the findings at-a-glance, while the following text reviews the findings in more detail.
### Table 6 Accessibility

<table>
<thead>
<tr>
<th></th>
<th>Windsor Base case</th>
<th>BELL Case 2</th>
<th>Read to Achieve Case 3</th>
<th>KindergARTen Case 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meal Program</strong></td>
<td>Hot meals available for a fee.</td>
<td>Free breakfast and lunch provided.</td>
<td>Free lunch and snacks provided.</td>
<td>Free breakfast and lunch provided.</td>
</tr>
<tr>
<td><strong>Subsidies</strong></td>
<td>Subsidies are available via various programs to low-income families. Up to 90% of camp costs subsidized.</td>
<td>Subsidies available on a sliding scale for family with incomes &lt;$80,000</td>
<td>Large subsidy for all participants. Payment plan available for parents experiencing financial barriers.</td>
<td>Full subsidy for all participants.</td>
</tr>
</tbody>
</table>

3.5.1 Base Case: City of Windsor

There are a number of subsidies available for participants at the City of Windsor general day camps. These include: subsidies offered through social services for participants who are collecting social assistance; the National Child Benefit Supplement; subsidies through the City for families who are in receipt of the Ontario Disability Support Program; and Canadian Tire Jump Start subsidies, though these are only available for some specialty camps such as sports camps. The camp operates based on fees for participants who do not receive subsidies, and those fees cover the costs of running the camp. Participants are required to provide their own meals, although hot lunches are available for a fee.

3.5.2 Case 2: BELL

The camp, in total, cost $1500 per student for the entire summer. Given that the camp targeted low-income students, they provided subsidized camp costs to participants through federal and private funding sources. Families reporting less than $80,000 per year in family income were eligible for subsidies based on a sliding scale. Essentially all of the participants in the camp
received a subsidy. All students also received free breakfast and lunch when participating in the camp.

3.5.3 Case 3: Read to Achieve

Each participant at the camp received a subsidy. The cost of the camp to each participant for the entire eight weeks was $125. The Milken Family Foundation, along with other partners (who provided resources in kind such as books, classroom rental and computers), and a 21st Century Community Learning Centre grant were the funding sources to make the camp low-cost at the point of use for all participants. Payment plans were available to parents who still experienced a barrier in sending their children to camp. In addition to the subsidy, participants received lunch and snacks free of charge.

3.5.4 Case 4: KindergARTen

A 21st Century Community Learning Centres grant made this program free at the point of use. Participants were all low-income, and were able to take part in the camp at no charge. All participants received free breakfast in the morning and free lunch, prepared by the Baltimore City Public School System Office of Food and Nutrition.

3.6 Comparative Analysis

In section 2, I described the method for case study analysis. I treated each of the supplementary research questions as a theme and compared the cases in order to develop an explanation for their success at reducing the SLL. I analyzed the case of the City of Windsor to determine areas that were similar to the other three cases and opportunities for improvement. Following this, I developed a set of policy options that may be effective at reducing the SLL among low-income children and youth in the City of Windsor.
3.6.1 Camp Characteristics

One of the limitations discussed by each of the three explanatory cases was that the opening hours were inopportune for working poor families. Some parents were not able to send their children to the camps because their work hours meant that they were unable to pick them up or drop them off at the appropriate times. The City of Windsor camp included a pick-up and drop-off period, and therefore parents had increased flexibility in terms of getting their children to camp. This is a positive aspect of the Windsor camp as it provides flexibility for working poor parents.

Heyns (1978) found that summer activities in the US that ran for less than six weeks were not as effective at reducing the SLL as those that ran for six to eight weeks. She found that more time spent in summer activities was better for reducing SLL. The BELL program is the only program that ran for less than six weeks (five weeks in one location, six in the other). The Read to Achieve camp, which reported the greatest impact between the treatment and control group, ran for eight weeks and the KindergARTen camp ran for six weeks. The City of Windsor camp runs for nine or ten weeks depending on the timing of school finishing and starting, and is available to children and youth for the entire time that school is not in session.

3.6.2 Standardized Test Results

The explanatory cases were all successful at reducing the summer learning loss among their participants as compared to a control group. The KindergARTen camp used the most robust battery of tests to compare the two groups, and found that while participants in the treatment group increased test scores significantly on two tests as compared to the control group, the three other tests showed no statistical significance. In fact, the control group fared better on two of those tests than the treatment group.
The Read to Achieve camp was the only camp to provide evidence of the summer learning loss among their control group. Therefore, not only did the participants at that camp increase their reading ability over the summer, they mitigated the losses that not being in the treatment would have resulted in. It is also important to note that researchers trained parents of the control group in this case on techniques for teaching reading to their child. Many parents participated in the training and subsequently reported reading at least 15 books with their child over the summer. Despite this, the children still received lower scores on tests in the fall than they had in the spring. Researchers did not compare the results to other students whose parents did not learn new techniques. This would have allowed them to determine if there was disparity in learning loss between the control group and students who did not participate in either program.

Finally, students in the BELL program did score significantly better than the control group on the post-test, indicating that the BELL program reduced the impact of the summer learning loss on participants. Based on this information I conclude that standardized curriculum taught by credentialed teachers can reduce SLL among low-income students.

3.6.3 Curriculum

Academic curriculum was a common thread between each of the three explanatory cases. Although none employed the same curriculum as the others, they each adopted or designed a program specifically designed to teach at least reading, but also in some cases, math, science and art.

All four camps included field trips within their design. The explanatory cases explicitly include educational elements in their field trips (museums, observatories, etc.), while the City of Windsor tends to provide field trips which are more recreational in nature. There may be an opportunity within the City of Windsor to collaborate with organizations that offer both recreational and academic opportunities at their field trips. Examples include historic sites and
museums, the science centre, the symphony and nature observatories. As noted by one Key Informant (KI3, 2010), field trips provide a unique opportunity to build learning into the camp without seeming too academic. For example, students can be encouraged to read books, complete projects and discuss thoughts about specific topic areas related to a field trip. Including educational activities in the days leading up to and following the field trip is a way to enhance the learning that participants experience at the location.

3.6.4 Adult Involvement

All three explanatory cases reported that credentialed teachers led the summer camp academic activities. In addition, two of the three also employed college students to assist the teachers and reduce the staff to student ratio. The City of Windsor camp was the only case that reported that high school students were hired. Although the camp also employs college students, the lack of working teachers may affect the camp’s ability to influence SLL positively.

With a staff to student ratio of 1:15, the City of Windsor camp nearly doubles the ratio of two of the three other camps analyzed in this case study, and almost quadruples that of the Kindergarten camp. The three explanatory cases assert that having increased individual attention is beneficial for the students; however, the benefit of maintaining a ratio of 1:7 and 1:8 versus a ratio of 1:4 was not apparent in the pre and post-testing. It is unclear as to whether a change in staff to student ratio would improve the ability of the City of Windsor day camps to reduce SLL.

Researchers and staff did not clearly describe the level of parental involvement in each of the cases. Parental involvement in summer camps is important because camp staff may notice behavioural or emotional issues that schoolteachers do not, due to the smaller staff to student ratio and the increased variety of activities and participants at camps (EI2). In addition, parents who do
not see their role as educators may become more involved in camps if given the opportunity to participate, such as through an advisory board.

### 3.6.5 Accessibility

Each of the camps offered large subsidies to low-income participants. While one camp, the KindergARTen camp, offered full subsidies, the others provided parents with very low cost options for caring, and in some cases, educating their children during the summer. The City of Windsor had a greater variety of options for subsidies. Windsor is the only camp that accepts mixed SES participants therefore not all participants require subsidies.

All three of the explanatory camps provided meal programs, although the City of Windsor day camp did not provide free meals. Given that malnutrition is a hindrance to cognitive development among children (see section 1.5.3), providing a meal program would ensure that no participants’ learning is limited due to a lack of nutritional food.
4: Description of Policy Options

Based on the analysis of case study data, I developed six policy options with potential to reduce the SLL in the City of Windsor by utilizing municipal summer day camps. Each of these options maintains the mixed-socio-economic nature of the camps and the assumption that the existing subsidy system for low-income participants will continue.

Collecting pre and post-test data in the City of Windsor enables decision makers and stakeholders involved with the camp to assess the effectiveness of the chosen policy options. This testing should occur along with any of the options described below in order to determine the magnitude of the problem in Windsor and to evaluate whether the implemented policy has had any impact. In addition, because all of the explanatory cases involved free meal programs, the City of Windsor should evaluate whether or not a meal program would increase the likelihood that low-income participants are consuming adequate and nutritious foods while they are at the camp. The City of Windsor should also develop an advisory committee that will oversee the camp design. The committee can include stakeholders such as parents, staff and educators.

The options fall into one of three categories. These are “Recreational Focus”, “Community of Learning” and “Academic Focus”. Figure 6 shows how each of these options relates to one of the three categories. In this section, I provide a description of each of the policy options. The following section will outline criteria used to evaluate each option, followed by a description of the analysis of options.
4.1 Recreational Focus

The first two policy options, the status quo and the enhanced status quo, maintain the strong recreational focus that the City of Windsor municipal summer day camps currently provide. I provide a description of each policy option below.

4.1.1 Option One: Status Quo

The status quo option in the municipal summer day camps in Windsor, Ontario would involve continuing to run the program as is. As described above, the camp would hire counsellors to facilitate the camp at a ratio of approximately 1:8. These counsellors all have prior experience working with children. Some are high school students and others are generally university students or graduates. Counsellors are trained using High Five training administered by the City of Windsor, as well as training specific to the day camp setting at the beginning of each summer. Counsellors also receive training in first aid and CPR.
Activities at the camp involve weekly field trips to destinations such as water parks, the art gallery, bowling and nature centres. In addition, participants participate in physical activities, examples of which are swimming, playing active games and sports. Crafts are also a part of the camp curriculum. The camp starts at 9:00 AM and runs until 4:30 PM, although supervision is on site for drop off and pick up between 7:30 AM and 5:30 PM. There is no pre and post-testing conducted at the camp, and therefore the camp is not fully capable of reducing SLL because they do not know the magnitude of the problem.

**4.1.2 Option Two: Enhanced Status Quo**

There are many positive aspects of the status quo. For example, the training provided to staff and the intention to keep staff turnover low across multiple summers maintains organizational history and allows for the establishment of rapport between staff and students over time. In addition, the timing of the camp is conducive to parents of low-income students, as they have a window of time available in both the morning and evening to pick up their children from camp. Case studies identified the start and end times of camps as a limitation because some parents were unable to transport their children to and from camp.

This option involves making improvements to the camp to enhance its ability to address SLL among the participants already involved with the camp. I recommend improvements in four areas: field trips, weekly themes, a partnership with the library and a camp reading challenge.

First, field trips have an explicit intention to include learning enhancement. For example, the camp could develop partnerships with nature observatories, science centres and museums to provide educational as well as entertaining experiences to participants. The field trips allow students from low-income backgrounds the opportunity to take part in activities that they may not otherwise have access to during time with their families. Field trips can engage students in
learning about academically focused material such as history, geography, art and nature in a fun way (KI3, 2010).

Weekly themes that relate to the field trip would help to engage students and encourage them to learn about the topics without seeming too academically focused (KI3, 2010). Staff can tailor activities during these theme weeks to strengthen the cognitive development of participants. Activities could include storytelling, participating in ‘scavenger hunts’ where participants have to find the answers to theme-related questions, and group activities such as drama, art and active games.

A partnership with the library could supply books at various reading levels to be available during ‘down times’ of the camp to complement physical activity opportunities. These books would be most effective if related to the weekly themes (KI3, 2010). Camp counsellors could facilitate small group discussions about the books and ask participants what they learned about the theme to incorporate these into activities to take place during the field trip. In addition, pairing older participants with younger participants to read with them would enhance the leadership skills of older participants and the reading ability of younger participants.

Finally, a camp challenge, such as a book reading challenge, could lead to an increase in reading during the summer at home. One example of this is to collaborate with a local business to have gift certificates available for students who read a certain number of books during the summer, as evidenced in one of the cases with a gift certificate for pizza provided to families that listed at least 15 books read over the course of the summer.

4.2 Community of Learning

The next two options involve making additions to day camps, as they currently operate or after adopting one of the other options. These foster a community of learning by engaging either parents or volunteers with the potential to enhance the camp’s effectiveness at reducing the SLL.
4.2.1 Option Three: Utilize Volunteer Tutors

This option stems from the analysis of one of the cases where volunteer tutors provided one-on-one reading instruction to students. In this option, a certified reading support teacher trains tutors regarding the level of instruction that they will be providing to their respective student. Non-teacher tutors can significantly enhance students reading ability compared to control groups that were not tutored (Vadasy et al., 2000). Tutors attend the camp for two one-hour sessions each week to work with the student to enhance his or her reading and comprehension skills. Camps could use a standardized format similar to that used in the ‘Read to Achieve’ camp, and clearly outline the structure of the session to include reading aloud, practicing phonics and discussion to ensure reading comprehension. Camps can recruit tutors through existing local programs, such as the Big Brothers Big Sisters school mentoring program, or by targeting student teachers and retired teachers.

This option provides direct long-term benefits to the child as the tutor maintains the relationship with the child throughout the school year (Baker et al., 2000). By continuing the learning from the summer day camp through the year, students are able to continue the enhanced reading that they began in the summer and are able to return to the summer camp the following year at a higher level than when they left.

4.2.2 Option Four: Foster a Love of Reading by Involving Parents

Building on one of the initiatives implemented in the ‘Read to Achieve’ camp, this option involves a partnership with the library to foster a love of reading among camp participants and their families. The ‘Read to Achieve’ camp organized weekly campfire sessions at the local library. Community leaders attended these events to participate in storytelling sessions. Providing snacks and refreshments encourages people to attend. While the specific impact of this was not discussed in the literature available from the Read to Achieve camp, evidence shows that when
parents are involved in their children’s education, academic achievement is enhanced (Fan and Chen, 2001).

This option is also useful because not only does it bring families into the library, but also each child receives a library card so that they can benefit from library services outside of the context of campfire nights. This is important because low-income parents generally do not have the resources to purchase books for their children (Chin and Phillips, 2004), and libraries provide an opportunity for parents to access books at no charge (Koontz et al., 2005). This would introduce parents and children to culturally sensitive literature and facilitating familiarity of library services and opportunities to participate in other library-sponsored events. It was difficult to find research on public library use and academic achievement, however evidence suggests that school library use is significantly positive related with students’ academic performance (Williams et al., 2001).

4.3 Academic Focus

The final two policy options discussed here involve an academic focus. Both utilize a standardized curriculum in an effort to reduce the SLL, and both involve teachers in some capacity to lead the curriculum at camp.

4.3.1 Option Five: Employ Teachers to Implement Standardized Curriculum

All three of the cases that were successful at reducing the SLL employed professional teachers from local public schools. These teachers receive training in standardized curriculum, and the schedule for teaching sessions each day is prepared in advance. This option involves employing teachers from the Windsor school boards and adopting a standardized curriculum, such as those adopted by the other three camps.

This policy option involves implementing reading curriculum at a minimum, as all of the cases in the case study focused on reading. All cases were successful at reducing SLL among
low-income participants according to standardized test scores. Two of the cases also focused on either math or art, and these could be included in this option if desired. Teachers receive training which prepares them to teach various levels of curricula and provide classes to different levels during different periods of the day.

The remainder of the camp is similar to the status quo, with field trips, physical activity and crafts incorporated into the rest of the daily activities. Counsellors similar to those that the City of Windsor day camps currently employs lead these activities.

4.3.2 Option Six: Employ Student Teachers to Implement Standardized Curriculum

Similar to option five, this option involves implementing standardized curriculum for a portion of the summer camp. Instead of hiring professionally certified teachers, however, this option capitalizes on a partnership with the University of Windsor to employ student teachers and is therefore less expensive than option five. The Faculty of Education at the University of Windsor provides two pools of students from which to draw. First, there are students in five-year concurrent programs, where students complete a Bachelor of Arts, Bachelor of Education and Diploma in Early Childhood Education concurrently over the course of five years. Second, there are students who will attend traditional post-graduate program for the following school year.

This option, like option five, incorporates activities similar to those that are currently involved with the City of Windsor day camps. Counsellors as above could lead these camps, or the student teachers could act as counsellors throughout the day and work with the same level of students. This option is a more economically conservative alternative to option five but I will discuss the trade-offs for financial cost in section seven.
5: Criteria for Evaluating Policy Options

In order to examine the benefits, drawbacks and tradeoffs with regard to each of the policy options described above I developed a set of criteria. This is a standard practice of policy analysis (Patton and Sawicki, 1986) and assists with the evaluation of each of the policy options in order to determine the best fit for the City of Windsor summer day camps.

Four criteria: cost, effectiveness, ease of implementation and stakeholder acceptability, assists with the analysis. Table 7 displays a definition of each criterion and the measures used to evaluate the options. I describe these more fully below. Each criterion was assigned a ranking scheme (colours in right-hand column of Table 7), which allowed for a visual representation of the benefits and drawbacks of each policy option. These facilitated the development of a set of recommendations to make to the City of Windsor for implementation at their municipal summer day camps.
Table 7 Description of Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
<th>Measure</th>
<th>Rating Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td>The financial cost of introducing the proposed option.</td>
<td>Incremental cost to City of Windsor ($ to run program)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Capital costs</td>
<td>0-10,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Operating costs</td>
<td>-50,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Opportunity costs</td>
<td>-100,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100,001+</td>
</tr>
<tr>
<td><strong>Effectiveness</strong></td>
<td>How effective will the proposed option be at reducing SLL?</td>
<td>Expert interviewees ranked options according to effectiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Data from literature</td>
<td></td>
</tr>
<tr>
<td><strong>Ease of</strong></td>
<td>What changes will be required to implement this policy (administrative,</td>
<td>Number of changes made from status quo</td>
<td></td>
</tr>
<tr>
<td><strong>implementation</strong></td>
<td>training, hiring, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stakeholder</strong></td>
<td>How will the proposed option be received by:</td>
<td>Expert Interviewees discussed stakeholder perceptions.</td>
<td></td>
</tr>
<tr>
<td><strong>Acceptability</strong></td>
<td>• Children and youth</td>
<td>For each stakeholder:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Parents</td>
<td>If positive = 2 points</td>
<td>7-8</td>
</tr>
<tr>
<td></td>
<td>• Staff</td>
<td>If neutral = 1 point</td>
<td>5-6</td>
</tr>
<tr>
<td></td>
<td>• Program managers</td>
<td>If negative = 0 points</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1-2</td>
</tr>
</tbody>
</table>

5.1 Cost

As in all public policies and programs, cost is an important consideration in deciding between options. This involved looking at all of the incremental costs associated with implementing the proposed option. Both capital and operating costs were included. In addition, I considered opportunity costs where applicable.
5.2 Effectiveness

The second criterion used to analyze these options was effectiveness. This criterion seeks to determine the extent to which the proposed option will reduce SLL. I evaluated the policy options based on whether case studies, literature and expert interviews predicted that they would reduce SLL. I consulted academics with expertise in the field and asked them to speak to the effectiveness of each of these options. I describe the interview process in detail in section two.

5.3 Ease of Implementation

This criterion considers the changes required to implement each policy option. I assess the degree of difference from the status quo. This involved looking at the number and magnitude of changes required regarding staff, location, curriculum and other program characteristics.

5.4 Stakeholder Acceptability

Five different groups of stakeholders are included in the analysis of this criterion. I evaluate acceptability through both a literature review and consultation with the expert interview participants to provide understandings concerning how service users would receive the proposed option.

Children and youth who are participants in the camp are important because their enjoyment and engagement in the camp may influence whether or not they continue to attend the camp. The second group of interest is parents, as they are the people who decide whether their children will attend the camp. In addition, as some of the proposed policy options involve parental engagement, it is important to consider their acceptance of the program.

Another group is day camp staff. The staff at the day camp often return for multiple summers, and therefore any effects on staff retention are considered. The responsibility of implementing any policy that is adopted also falls to the day camp staff, so their acceptance is
crucial to a proposed policy’s success. Another crucial supporter is the program manager, as potential policy implementation requires her support and approval. I inferred the acceptance of the program manager based on the acceptance of various program staff from other camps, and from a face-to-face interview with the program manager during the first stage of data collection.
6: Analysis of Policy Options

I analyzed each of the six policy options described in section four against the criteria set out in section five. Below are the results of the analysis, divided by option. I provide a description of how the results were determined for each option. Section seven displays a matrix, which provides a picture of the tradeoffs between options based on the criteria.

6.1 Option One: Status Quo

As described above, the status quo involves no changes to the current City of Windsor municipal summer day camps. The curriculum does not intentionally address the summer learning loss. In this policy option, the camp continues to operate as is.

6.1.1 Cost

This criterion reflects the incremental costs associated with each option; therefore, the status quo has no cost. In other words, because the status quo represents costs already incurred by the City of Windsor, there is no additional cost to consider with regard to this option.

6.1.2 Effectiveness

Keeping them from doing whatever it is they were doing at home...simply getting them out of the house is valuable (EI1, 2010).

The experts that I interviewed did not think that the City of Windsor day camps were ineffective. All considered the camp to be a good alternative to children and youth staying at home alone. In addition, because there were positive role models at the day camps, they provided an opportunity for youth to discuss issues that they were having at home with their parents.
According to one expert (EI2, 2010), social or emotional problems not identified in the school setting may be recognized and addressed through referral as a result of a child’s involvement in the camp. Studies indicate that summer camps increase the cognitive ability of participants, even when the camp is not educationally focused (Thurber et al., 2007). Because it is better for children to attend the camp rather than remaining in their homes throughout the summer (EI2, 2010), the Status Quo is moderately effective at reducing SLL.

6.1.3  Ease of Implementation

As there is no change in implementing the status quo, it is the easiest to implement and ranks high on the ease of implementation scale.

6.1.4  Stakeholder Acceptability

Stakeholders are currently funding and participating in the Status Quo option. Therefore, stakeholder acceptability is high.

6.2  Option Two: Enhanced Status Quo

The enhanced status quo option involves maintaining many of the aspects of the status quo, but including a more academic and research-based lens. Modifying existing activities provides additional educational opportunities to all participants.

6.2.1  Cost

Implementation of the enhanced status quo is very low cost, as few changes to the existing program design are required. For example, field trips already take place, so admission costs and transportation costs need not be incremental. Instead of spending field trip dollars on recreational trips, redirect that money to more educationally focused field trips. Many educational field trip options exist in the Windsor-Essex County region; therefore, they should not incur an additional transportation or entry cost.
Another component of the enhanced status quo is to provide opportunities for reading. This can be coordinated through a partnership with the Windsor Public Library, which, in some cases, is located in the same building as the day camp. Whether it is on site or not, developing a partnership where a number of books from different levels are available to the participants each week would be a no cost opportunity to implement this option. There would also be no incremental cost associated with developing the weekly themes to have a more educational focus.

The final aspect of the enhanced status quo is to have a challenge where participants who read a certain number of books over the summer receive a reward. Again, the camp can develop a partnership with a local business to limit the cost of this option. For example, negotiate an agreement where $20 gift certificates are available for $10 each, a fifty per cent savings. This would be attractive to a business owner because there would be increased traffic at their store. If the cost of this option were $10 per participant, a reasonable cost estimate (based on 60 participants per camp at nine camps) is $5400. Therefore, the incremental cost from the Status Quo option is $5400.

6.2.2 Effectiveness

If we’re trying to address the summer learning gap, probably the best thing you can do is try to mimic the experiences that kids form higher income homes have (EI2, 2010).

The consensus among experts was that the enhanced status quo would be very effective at reducing SLL while allowing participants to develop social skills and take part in leisure activities throughout the summer to which they may not otherwise have access. The introduction of educational field trips and opportunities for reading are strong improvements (Burkam et al., 2004; Bell and Carrillo, 2007) to the existing structure. Having books in different languages might allow participants with low English skills the opportunity to still practice reading (EI2, 2010).
6.2.3 Ease of Implementation

This option involves no major changes to the status quo. The daily schedule remains the same, with additional opportunities for educational activities. For this reason, the Enhanced Status Quo option would be very easy to implement within the City of Windsor day camps.

6.2.4 Stakeholder Acceptability

As described in reference to the above criteria, this option poses no major changes to the existing summer camp system. The experts interviewed did not foresee any issues with stakeholders by making these changes to the camp. Participants would still have the opportunity to participate in theme weeks, in field trips and in free time, where they could continue to play with gym equipment or choose to read. Children who attend summer camps may experience an increase in self-esteem over the course of the camp, thereby enhancing their acceptability (Readdick and Schaller, 2005). Parents perceive summer camps as positive experiences for their children (Henderson et al., 2007). As the camp provides children with a more educational experience parents are unlikely to oppose these changes.

The camp staff and program manager should not experience any major challenges in making the changes to the camp, as the majority of the planning process will remain the same, but using an educational lens for some of the activities.

6.3 Option Three: Utilize Volunteer Tutors

This option requires only the addition of time to spend with volunteer tutors during the camp. Two, one-hour sessions each week would be available for students to practice one on one reading with participants.
6.3.1 Cost

The cost for this option is limited to the cost to train the tutors and any costs associated with purchasing books. It would be useful to develop a partnership with the Windsor Public Library to provide books for the volunteer tutors at no cost. While recruiting volunteers could incur a cost, there are potential partnerships with programs such as the Big Brothers Big Sisters In-School Mentoring program, an existing volunteer matching program in Windsor, in order to utilize existing volunteers and administrative structures. If a credentialed reading teacher trains the tutors, the cost would be approximately $30/hour based on the average hourly wage of a teacher at the Windsor Essex Catholic District School Board. The tutor training occurs in a group setting rather than on a camp-by-camp basis in order to save costs. At the Read to Achieve camp, tutors participated in two full days of training. At $30/hour for 16 hours, this tutor training would cost $480 per year.

6.3.2 Effectiveness

*I don’t think this option would be effective at all (EI1, 2010).*

*I really like this option; I think one-on-one programs are always good (EI2, 2010).*

This option was controversial among the expert interviewees. One person thought that the option would be completely ineffective and would provide no benefit over the status quo. The other thought that volunteer reading tutors could provide the one-on-one attention that children who are living in poverty do not always receive. The same expert suggested that using student teachers as tutors could enhance this option.

While this option was a part of the Read to Achieve program, the evaluation of the program did not isolate for impacts of specific components of the program, and therefore it is not possible to infer that the volunteer tutors had any impact on the reading outcomes of the camp.
participants. In a longitudinal two-year study of a volunteer tutor program in the US, however, results indicate that one-on-one reading with a trained volunteer can accelerate reading outcomes in kindergarten to second grade students (Baker et al., 2000).

6.3.3 Ease of Implementation

Implementing a volunteer reading tutor program would require some changes to the programming at the City of Windsor day camps. First, the camp needs to recruit tutors, train them and match them with participants. Second, time would need to be set aside for the tutor to meet with their participant. In the Read to Achieve program, timing was up to the tutor and the participant. However, a certain amount of facilitation would be necessary, as the tutor and participant need quiet space to maximize effectiveness. Therefore, this option required two minor changes; recruiting volunteers and facilitating one-on-one sessions.

6.3.4 Stakeholder Acceptability

This option would reduce the acceptability by children, given that it reduces their leisure time. If the tutor met with them at an inopportune time, they may risk missing fun activities with their peers whose tutors’ were available during ‘down time’. While having a positive adult role model may be beneficial and desirable to the participant, there is a trade-off with time spent with friends. In addition, as the children grow older, this option may become less acceptable to them.

Parents would likely approve of the Volunteer Reading Tutor program, as it provides free tutoring to their children, and gives their children an opportunity to practice their reading skills over the summer. Camp staff and program managers may find this option to be more logistically difficult because of the issues of space and timing.
6.4 Option Four: Foster a Love of Reading by Involving Parents

This option involves hosting a weekly community night to involve parents in the camp activities. It also involves access to the library to enhance familiarity among families, and provides each participant with a library card that they can use in the future.

6.4.1 Cost

This program would incur higher incremental costs than the three previously mentioned programs. Because the library hosts this program, the space might be free; however, offering snacks and refreshments provide an incentive for parents and children to attend. If each child attends with one parent and the cost per person is approximately $2 (a drink and small snack), the total cost for one evening would be $2160 ($2*60 participants per camp*2 [participant+parent]*9 camps). If this program ran for the entire nine weeks of the camp, the total cost incurred for snacks and refreshments is $19,440. In addition, camp or library staff scheduled during these evening sessions would result in an increased cost to the camp. Camp staff earn an average of $17.75 per hour. In this case, the cost to have one staff run the program for two hours per night is $2875.50 ($17.75*2 hours per week*9 weeks*9 camps). The total cost per year of implementing this option is $22,315.50.

6.4.2 Effectiveness

The parents that are having difficulty are exactly the kind of parents that wouldn’t be available for these types of weekly events (EI1, 2010).

While all of the experts interviewed thought that involving parents could be positive, they recognized that low-income parents would be the least likely to attend these events. This is because low-income parents tend to be the ones who work shift work or multiple jobs and do not have the means to attend the event (Chin and Phillips, 2004). In addition, if there are other children who are too young to participate in the camp, childcare could be an issue. Parental
involvement, particularly among low-income children, can have a significant positive impact on child cognitive development and school achievement (Dearing et al., 2006; Izzo et al., 1999).

The experts also both suggested that for parents who are new Canadians, it might be difficult to engage them in such an activity. Because they may have low English skills, encouraging them to attend the events would be more effective in their home language. One of the experts suggested holding regular multicultural community potlucks with a story time, where participants could provide cultural cuisine to highlight their diversity.

6.4.3 Ease of Implementation

This option would require a large amount of planning in order to implement it. For example, staff and program managers would need to coordinate with the library, would need to purchase the snacks and refreshments, organize and lead activities for each of the campfire nights and invite parents to attend. This is all in addition to the daily activities of the camp. For this reason, this option requires a major change from the status quo, and therefore it receives a score of one on major changes for ease of implementation.

6.4.4 Stakeholder Acceptability

Participants in the camp would likely find this option acceptable, according to expert interviews. The participants would be able to enjoy an activity evening that was free to them, and would learn about the library services that they could later access on their own. As described above, parental acceptability of this option may be lower, as parents who work in the evenings or have other commitments may not be able to attend (Chin and Phillips, 2004). In addition, parents from diverse backgrounds may not find this option appealing.

This option would add a significant amount of work on to already busy camp staff and program managers. While they may appreciate the community focus of this option, they may find the additional logistics difficult and therefore their acceptability may be neutral.
6.5 Option Five: Standardized Curriculum with Teachers

This option involves implementing a standardized curriculum, with teachers hired to lead 2-hour sessions each day. The teachers could teach multiple sessions per day to maximize cost effectiveness.

6.5.1 Cost

*If bringing in certified teachers is expensive, I’d be disinclined to do it if the cost of that is making these camps harder to get into (EI1, 2010)*

There are a number of costs associated with this option. These include hiring teachers, purchasing books to teach the curriculum and the lost opportunity cost of using additional rooms. This is because the current day camp generally only uses small spaces and the gymnasium, and in order to implement this option properly a larger, classroom-style space with tables and chairs is required.

I used the Windsor Essex Catholic District School Board financial reports to determine the cost for this option. There were approximately 743 K-7 teachers at the school board in 2009 (WECDSB, 2009). I chose K-7 teachers because the students in those classes are between the ages of 5 and 12 in the summer, and therefore the teachers would be familiar with the camp aged children. On average, these teachers earned approximately $4290 per month according to the 2008-2009 revised budget estimates (WECDSB, 2009b). Therefore, if the teachers hired were representative of the full spectrum of experience that exists within the school board, the incremental cost per teacher amounts to $9652.50 for the nine weeks that the City of Windsor camps are in session. At minimum, one teacher would be required for each of the nine camps, bringing the incremental cost of hiring one teacher per camp to $86,872.50 for the summer.

In order to determine the cost of books, I reviewed the budget for the ‘Read to Achieve’ camp to develop a proxy. The cost for the Open Court curriculum class set was $2750 per set.
Eight sets (K-7) of the curriculum are required for each camp as the curriculum is available by grade level. The entire cost for one camp set, is $22,000. If each of the nine camps purchased one entire set, the total cost would be $198,000.

Finally, I determined the opportunity cost of missing rooms by contacting one of the community centres to determine the cost that a community member or activity would pay if the camp did not need the room. For a classroom space at one of the camps, the cost per hour for rental is $18.50. This means that the cost for one week of rental at one location (assuming a seven hour per day rental) is $647.50. The lost opportunity cost per facility, therefore, is $5827.50 over the course of the summer, and the total foregone opportunity cost for the entire summer is $52,447.50 across all nine locations.

Adding all three of these costs, the total incremental cost for implementing option five at the City of Windsor day camps for the first summer is $337,320. In subsequent summers, because the camp does not need to re-purchase the curriculum, the total cost is $139,320.

6.5.2 Effectiveness

The case study examined in section three demonstrated that hiring credentialed teachers and implementing a standardized curriculum is effective at reducing the summer learning loss. In addition, the experts interviewed felt that this would be the most effective way of all the options presented to reduce SLL among children living in poverty.

6.5.3 Ease of Implementation

There are a number of considerations to take into account in terms of implementing this option. For example, this option would require recruitment and hiring of teachers, coordinating time slots, and determining reading levels. Two of the three camps used as explanatory cases had two or fewer grades involved with their camps, and therefore there was less diversity in the range of reading ability than there would be in the City of Windsor day camp, where there are 8 grades
involved. Therefore, this option received a ranking of three major changes. These include, as stated above, securing teachers to lead the sessions, coordinating the reading sessions and assigning students to classes based on their reading levels.

6.5.4 Stakeholder Acceptability

As described in section one, one of the primary reasons for summer schools not being effective is their punitive nature. Having children in a classroom, then, would likely also score low on children’s acceptability (Schacter, 2003). As one of the experts described it, having children in a classroom because they are poor, while their friends are out enjoying leisure time during the summer is not very attractive (EI2, 2010). In addition, one expert suggested that children from some participants, for example Aboriginal children, might reject the increased authority that teachers have, as opposed to camp counsellors who are generally younger and can establish a friendly rapport (EI1, 2010).

The experts felt that parents would be neutral regarding this option. Some parents would value the additional educational time provided by the teachers, while others, particularly those who were low income and the working poor, may see this as inhibiting on the fun experience that they see as an important part of summer (EI2, 2010).

This option may result in a decreased need for current day camp counsellors to return. For this reason, the option would not be particularly acceptable to day camp staff. It would also increase the workload of the program manager, as scheduling and coordination would be an issue. Therefore, the staff and program manager would likely be neutral about implementing this option.

6.6 Option Six: Standardized Curriculum with Student Teachers

This option is very similar to option five. The only difference is that the camp hires student teachers to teach the standardized curriculum rather than credentialed teachers. For this
option, the City of Windsor could recruit students through a partnership with the University of Windsor, which offers a Faculty of Education program.

6.6.1 Cost

This option would incur the same costs as option five: hiring teachers, purchasing curricular materials and lost opportunity cost of using classroom space for other purposes. However, this option does cost less than hiring credentialed teachers, as student teachers earn a lower salary. The average hourly wage for the credentialed teachers was $30.64 ($4290/4 weeks/35 hours per week). If the student teachers were paid $19.50/hour, which is the upper bound of the recreational staff pay in the City of Windsor, this would result in a reduced cost. In this case, the cost for the entire summer per teacher is $6142.50. The cost to hire one teacher for each camp in this option is $55,282.50.

In order to implement this option, the first summer incurs an incremental cost of $305,730. Following the first year, once the camp owns the curriculum, the incremental cost is $107,730.

6.6.2 Effectiveness

*Certification doesn’t itself matter all that much. What matters is experience up to year 3 or so (EI1, 2010).*

*I have tried to do community school programming with student teachers and it has not worked that well. Most of their energy when they are taking their training is to learn how to teach, manage a class and to add something on top of that task is quite overwhelming (EI3, 2010).*

The expert interviewees did not see this option as particularly effective. They stated that hiring student teachers, while less expensive than hiring credentialed teachers, also offered a lower quality education. This option also had some of the aspects of option five that were not optimal, including reducing participants’ leisure time and reducing time spent in non-academic
learning. While preservice teachers from programs classified as ‘excellent’ may be prepared to teach reading, other student teachers are less prepared (Hoffman et al., 2005).

6.6.3 Ease of Implementation

As was the case with option five, this option would not be particularly easy to implement. It would require the same logistical considerations as option five, which involve recruiting and hiring staff, coordinating space and schedules, and determining the reading levels of each of the campers. For this reason, I also assigned this option three major implementation difficulties.

6.6.4 Stakeholder Acceptability

Stakeholder acceptability of this option may be slightly lower than that of option five. This is because while the acceptability by parents and children is likely to remain the same, acceptability by camp staff may decrease. Because of the current emphasis on returning staff, it is possible that camp staff will be unhappy with the hiring of new staff who may have similar skills to them with potentially similar educational backgrounds. This is because as entering Faculty of Education students, or students who are in a concurrent program, they may not have more experience, and possibly less experience, working with children than the returning camp staff.
7: Evaluation of Policy Options

Following the analysis, I assigned a colour to each option based on the STAR methodology (Chesler and Goeller, 1973). In this technique, green represents the most attractive option(s). Blue indicates a somewhat attractive option, yellow signifies a less attractive option, and red is represents the least attractive option. This technique allows for the comparison of options and identification of tradeoffs so that I can determine the strongest option(s). I assigned the colours based on the analysis above, and then provide a further description and comparison below.
Table 8 Evaluation of Policy Options

<table>
<thead>
<tr>
<th></th>
<th>Status Quo</th>
<th>Enhanced Status Quo</th>
<th>Volunteer Tutors</th>
<th>Involve Parents</th>
<th>Hire Teachers</th>
<th>Hire Student Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td>$0</td>
<td>$5400</td>
<td>$480</td>
<td>$22,316</td>
<td>$337,320 (y1)</td>
<td>$305,730 (y1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$139,320 (y2+)</td>
<td>$107,730 (y2+)</td>
</tr>
<tr>
<td><strong>Effectiveness</strong></td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
<td>Fair</td>
<td>Best</td>
<td>Good</td>
</tr>
<tr>
<td><strong>Ease of</strong></td>
<td>0</td>
<td>0</td>
<td>Minor: 2</td>
<td>Major: 1</td>
<td>Major: 3</td>
<td>Major: 3</td>
</tr>
<tr>
<td><strong>implementation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stakeholder</strong></td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>acceptability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- **Most Attractive**
- **Somewhat Attractive**
- **Less Attractive**
- **Least Attractive**
7.1 Cost

The bounds for each colour of the cost criterion are $0-10,000 (green); $10,001-50,000 (blue); $50,001-100,000 (yellow); $100,001+ (red). It is important to note that Option 6, hiring student teachers to implement standardized curriculum, is in the red column for the first year, but in the yellow column for subsequent years as the cost of the option decreases dramatically after purchasing curricular materials.

7.2 Effectiveness

Effectiveness was determined based on the rankings provided by the expert interviewees. On all options but Utilizing Volunteer Tutors, the experts agreed on their ranking. For this reason, I assigned green to the option that was determined to be most effective, blue to the options that were effective but not as effective, and the options that the experts were unsure of I ranked yellow.

7.3 Ease of Implementation

The rankings for this criterion reflected the number of changes from the status quo. I only considered changes that would require actual modifications to the program. Therefore, if the change was simply to refocus the way that an activity occurs, this does not reflect in the ranking of that option. The changes listed are either major or minor. A major change occurred when a full adjustment to the operation of the camp was necessary. To determine ranking, no changes are coded green, minor changes are blue, 1-2 major changes are yellow and 3 or more major changes are red.

7.4 Stakeholder Acceptability

I determined stakeholder acceptability by assigning a number to the amount that I expect the stakeholder to accept the proposed option. If the option would be acceptable to the
stakeholder, I assign a 2. If the stakeholder would maintain a neutral feeling about the option, I assign a 1, and if the stakeholder would not accept the option, I assign a 0. With four stakeholders in this category, there is a maximum ranking of 8. In this system, green represents 8 and 7, 6 and 5 blue, 4 and 3 yellow and red represents 2 and 1.

7.5 Evaluating Tradeoffs

As displayed in Table 8, although option five, hiring teachers to implement standardized curriculum, is the most attractive option in terms of effectiveness, it is the least attractive with regard to cost and ease of implementation. Option five is dominated by four other options on all but the effectiveness criterion. In contrast, the enhanced status quo option is the dominant option on all but effectiveness, where it ranks second.

Based on this evaluation, the status quo is the second most attractive on all but the effectiveness criterion. Both of the community involvement options are in the middle, although utilizing volunteer tutors is more attractive than Parental Involvement.

The interest in the current study was to find ways to reduce summer learning loss, and because of this, I considered re-weighting the effectiveness criterion. I decided to maintain the original weighting, however, all of the other options continued to dominate hiring teachers, the ‘best’ option in terms of effectiveness, and therefore re-weighting did not change the recommendation. Another area where weighting may have been an issue was between the acceptability of parents and staff. Although staff do play a key role in the camps, parents are the group who can ‘vote with their feet’ by either enrolling their children in the camp or not. The overall ranking of the options did not change when I re-weighted for parental acceptability, however, and therefore I again chose to maintain the original weighting.
8: Recommendation

Based on the evaluation described above, I identified a policy option that the City of Windsor could implement at its municipal summer day camps in order to reduce SLL among children living in poverty. Because it was low-cost, acceptable to stakeholders, easy to implement and relatively effective, the results of the current study suggest that the City of Windsor should implement an enhanced status quo at the municipally operated summer day camps.

This option allows the City of Windsor to address SLL more effectively while maintaining the recreational and fun environment that children and families enjoy. It requires slight modification of the existing program design in order to provide a more educational focus. The following section outlines recommended steps to implement this option.

8.1 Implementation

The City of Windsor can implement the enhanced status quo seamlessly. The city can introduce all of the modifications at once, or choose to implement the enhanced status quo at a limited number of day camp sites to investigate the impact that it has on participation. I recommend the following steps:

1. Recruit an advisory committee to oversee the design of the camp and to evaluate its effectiveness at reducing SLL. This committee can include stakeholders such as teachers, community members, parents and staff.

2. Choose field trips that have an educational focus. Examples of these include the Science Centre, Jack Miner Bird Sanctuary, the Black Historical Museum, the Art Gallery of Windsor and Fort Malden. Education field trips should represent at least 60% of the field trips throughout the summer.
3. Give camp themes an educational focus. For example, have themes based on different parts of the world, different times in history and different types of art. Relate themes to the field trip for the week, and invite guest speakers who can teach participants about the theme.

4. Collaborate with the Windsor Public Library to make books relevant to different levels of readers available at the camp. These books should be changed on a regular basis (i.e. weekly or bi-weekly), and should be in a prominent location during ‘down times’ of the camp such as before and after camp begins and during ‘free time’.

5. Institute a day camp challenge, where participants who complete the challenge receive a prize. One example of this is to ask participants to read at least 15 books throughout the summer. Spend time during the camp day to talk about books that participants have read. If children can list a certain number (15, for example) of books that they have read throughout the summer, provide them with a gift certificate, such as a certificate for a bookstore. Collaborate with a local business to provide the gift certificates at a discounted rate. The number of books required should be lower as a child’s reading level increases, for example, when the child starts to read novels.

6. Evaluate the need for a free lunch program. Determine if low-income participants are experiencing nutritional deficiencies during the day, and assess whether or not offering a meal would be beneficial. Consider developing a partnership with a local non-profit or other organization to contribute funds to support the program.

7. Consider implementing a pre and post-test system for participants at the summer camp. Collaborate with the University of Windsor to conduct the testing. If the
enhanced status quo is not implemented at all of the camp sites the first summer, test students at all camps to determine if the enhanced status quo is effective at reducing the SLL in Windsor. If SLL is a continuing problem, consider implementing option five above, adopting a standardized curriculum with credentialed teachers.
9: Reducing Summer Learning Loss through Day Camps

The need for public policies that reduce the disparity between low and high-income students in terms of educational outcomes is clear (Dahl and DeLeire, 2008; Valetta, 2004; Steinbrickner and Steinbrickner, 2003; Acemoglu and Pischke, 2001; Duncan et al., 1998). One area of interest is summer learning loss, which accounts for up to 65% of the discrepancy between low and high-income students at high school completion (Alexander et al., 2007).

Summer camps, like the municipally operated day camps in the city of Windsor, Ontario, have a unique opportunity to reduce SLL while providing fun and recreational experiences for the children that they serve (Borman et al., 2009; Capizzano et al., 2007; Chaplin and Capizzano, 2006; Schacter, 2003). Reducing SLL may result in improved life outcomes for low-income children, and can reduce the impact of the cycle of poverty on these children later in life.

9.1 Considerations Regarding Data Collection

The data collection methodologies used in the current study posed some barriers and created some opportunities. First, the key informants did not receive the e-mail format for the case study well. Only one key informant chose to participate via e-mail. Two others participated by phone and a third declined participation entirely. The key informant who did participate by interview was eager and engaged at the beginning, however after the second exchange the response time was very long at over one week. For this reason, I chose to summarize all of the remaining questions in one final e-mail to attempt to keep the informant engaged until the end of the process. This did not result in the iterative process that I expected when choosing the e-mail format (Hamilton and Bowers, 2006; Vieville et al., 2005).
Second, the Multiple Sorting Task, used with experts in the data analysis phase, was useful, however none of the experts completed more than one sort. The initial sort helped to rank the effectiveness of each item, and the index cards seemed to provide a visual cue to ensure that they discussed each option in relation to each topic. Having a visual reminder of the options, along with a description of each policy written on the back, seemed to encourage the experts to compare the options and discuss the relative merits and drawbacks of each option throughout the interview.

9.2 Strengthening the Current Study

There are two important limitations of the current study, which require further consideration when deciding to implement the recommended policy option. The first is the clear lack of Canadian data with regard to SLL in Canada. There is currently no evidence to confirm that SLL is a problem in Canada. This is also true for the case of Windsor, Ontario. The lack of data means that this study uses solely findings from the US, which is a weakness of the findings.

Engaging participants in the program in the design and evaluation of the policy options also could strengthen this study. Because the experience of the people involved in the summer camp makes them experts, this type data collection could result in a richer and fuller understanding of the problem and potential solutions (Baum et al., 2006). This includes children, parents and staff. The original study design involved focus groups with these stakeholders, however due to time constraints I removed that aspect of the study. Future studies should actively engage stakeholders to ensure that the opinions of all relevant groups are considered.

9.3 Using the Findings at other Summer Camps

Other camps can use these findings to enhance their effectiveness at reducing SLL. Camps whose operation is similar to the City of Windsor day camps can take the recommendation and directly implement it at their camp. Camps can also use aspects of the
enhanced status quo to increase certain aspects of their camp, such as having educationally focused field trips.

Camps in rural locations may not have the same access to partners that the City of Windsor does. In this case, camps can call on the community to increase the effectiveness at reducing SLL. For example, the camp could ask community members to loan books for the summer, or could collaborate with a local school to have access to the school library if the town does not have a library of its own.
10: Appendices

10.1 Appendix A

Sliding Through the Summer: Can Day Camps Close the Income-Education Gap?

KEY INFORMANT INTERVIEW SCHEDULE

1) Can you tell me about the summer camp that you are involved with?
   a. How long have you been involved with the camp?
   b. In what capacity is your involvement?
   c. What are the objectives of the camp? How are these achieved?

2) What do you see as positive influences on summer learning loss at your camp? What are negative influences?

3) What are the attributes of the staff at your camp?
   a. What are their qualifications?
   b. Are they generally high school, post-secondary or professional?
   c. What training is available to new and returning staff?

4) What is the curriculum development process like for your camp?
   a. Who is involved?

5) What level of parental involvement is there?

6) To what extent is physical activity involved with your camp?
   a. How do you think this impacted summer learning loss?
7) How are field trips or off-site excursions involved in the camp?
   a. How often?
   b. What types?
   c. What type of impact do you think this had on summer learning loss, if any?

8) What types of community partners do you have?
   a. How do you see these impacting SLL?

9) How do meals and snacks work at camp?
   a. To what extent do you think nutrition affects the learning of camp participants?
   b. What happens at your camp when there are participants with nutritional deficiencies (e.g. not enough to eat?)

10) What kinds of subsidies are available to your participants? What percentage of participants access camp via subsidies?
    a. Do you notice any differences between participants who receive subsidies and those who don’t?

11) Are there any other attributes that you think set your camp apart from other day camps?

12) How could your camp be improved to reduce summer learning loss?
### 10.2 Appendix B

**Table 9 Case Study Data Sources**

<table>
<thead>
<tr>
<th>Case</th>
<th>Data Sources</th>
</tr>
</thead>
</table>
| **Base Case: City of Windsor** | KI1 [Key Informant Interview], 2009. Windsor, August 28.  
City of Windsor Activity Guide, Summer 2009  
Tentative Summer 2009 Recreation and Aquatic Training Dates, 2009 |
| **Case 2: BELL** | KI2 [Key Informant Interview], 2010. E-mail, March 1-19.  
| **Case 3: Read to Achieve** | Schacter, J. (2003). Preventing Summer Reading Declines in Children who are Disadvantaged. *Journal of Early Intervention, 26*(1), 47-58.  
| **Case 4: KindergARTen** | KI3 [Key Informant Interview], 2010. Telephone, March 29.  
10.3 Appendix C

Sliding Through the Summer: Can Day Camps Close the Income-Education Gap?

EXPERT INTERVIEW SCHEDULE

1) Please provide your opinion regarding each of the following options in terms of reducing the summer learning loss. How does this relate to:

   a. Effectiveness (cognitive development, increasing test scores)

   b. Cost

   c. Ease of Implementation

   d. Stakeholder Acceptability

      - Children

      - Parents

      - Staff

      - Program managers
10.4 Appendix D

Figure 7 Multiple Sorting Task Scatterplot

MST, Summer Slide

- Sort1EI1
- Sort1EI2

A, 5
B, 2
C, 6
D, 4
E, 4
F, 3

1 2 3 4 5 6
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**Interviews**

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KI2 [Key Informant Interview], 2010. E-mail, March 1-19.
KI3 [Key Informant Interview], 2010. Telephone, March 29.
KI4 [Key Informant Interview], 2010. Telephone, March 30.
KI5 [Key Informant Interview], 2010. Telephone, March 31.
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EI3 [Expert Interview], 2010. E-mail, April 9.