## 2018 Poverty Map

of the Comité de gestion de la taxe scolaire de l'île de Montréal







Research and Writing

Sébastien Grenier, Analyst in administration and planification

#### Secretariat

Myriam Mouhajir, Administrative Technician

## Graphic production of the guide

Colpron.com

© All rights reserved -Comité de gestion de la taxe scolaire de l'île de Montréal

Legal deposit, fourth quarter 2018 Bibliothèque et Archives nationales du Québec Library and Archives Canada

ISBN 978-2-921593-63-2

Logo FSC



#### **Table of Contents**

Introduction	į
Chapter 1 - Education in Underprivileged Are	as
1.1 Socio-Economic Underprivilege Concept	(
1.2 Impact of Socio-Economic Underprivilege on Academic Success	; 8
Chapter 2 - 2018 Poverty Map of the Comité of gestion de la taxe scolaire de l'île de Montréa	
2.1 Dividing the Island of Montréal into Zones	10
2.2 Overall Socio-Economic Underprivilege Index	1′
<ul><li>2.2.1 Target Population</li><li>2.2.2 Variables of the Overall Underprivilege Index</li><li>2.2.3 Overall Underprivilege Index</li></ul>	1°
2.3 Presentation of the 2018 Poverty Map	20
<ul> <li>2.3.1 Summary of the map of the Island of Montréal</li> <li>2.3.2 Summary of the map of Vaudreuil-Soulanges RCM</li> <li>2.3.3 List of Neighbourhoods on the Island of Montréal</li> <li>2.3.4 List of municipalites of the the Vaudreuil-Soulanges RCM</li> </ul>	20 20 23 23
Chapter 3 - Methodology	
3.1 Configuration of the Base Map	68
3.2 Choice and Weighting of Variables Used to Calculate the Overall Underprivilege Index	70
Conclusion	72
References	73



Foreword

For more than 40 years, the Comité de gestion de la taxe scolaire de l'île de Montréal (Comité de gestion) has supported school boards on the Island of Montréal within the context of education in underprivileged areas.

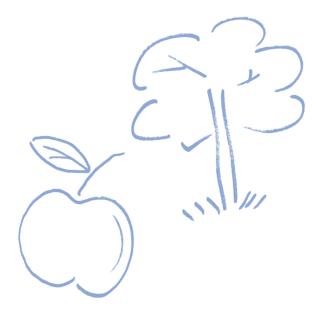
To accomplish this mission, the Comité de gestion has created a tool for understanding Montréal's urban fabric: the Poverty Map of Families with Children Under the Age of 18 on the Island of Montréal.

This is the ninth map to be produced by the Comité de gestion; the first was published in 1975. The map and its guide are placed at the disposal of school boards on the Island of Montréal and the general public.

The Comité de gestion de la taxe scolaire de l'île de Montréal would like to take this opportunity to thank everyone who has helped update the poverty map:

- Statistics Canada, Mrs Thérèse Nguyen and M. Jimmy Mikedis;
- Retraite Québec, M. François Fortin.





#### Introduction

One mandate of the Comité de gestion is to distribute, among the school boards on the Island of Montréal, funds from the additional school taxes collected and the investment income earned to implement educational catch-up measures in underprivileged areas on the Island of Montréal.

To carry out this responsibility, the Comité de gestion produces and uses a knowledge instrument: the Poverty Map of Families with Children Under the Age of 18 of school boards on the Island of Montréal. This instrument has two fundamental components: the base map and the overall underprivilege index. Both of these components have been updated from the most recent and reliable information available.

The Comité de gestion is pleased to present its latest poverty map, based on data from the 2016 National Household Survey and the Canadian Census conducted by Statistics Canada, as well as on data provided by the Retraite Québec. The guide for this ninth edition of the poverty map is divided into three chapters, which are as follows:

#### Education in Underprivileged Areas

Socio-economic underprivilege concept and its impact on the academic success of young people.

#### 2018 Poverty Map of the Comité de gestion de la taxe scolaire de l'île de Montréal

Results obtained in terms of the base map update and the overall underprivilege index as well as concerning the geographic distribution of underprivileged families on the Island of Montréal.

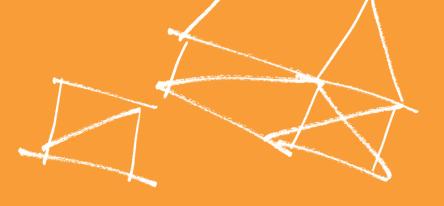
#### Methodology

Approach and methods used to develop the 2018 poverty map.

The publication of this new poverty map allows us to take a fresh look at the disturbing phenomenon arising from the socio-economic underprivilege concept and its impact on the likelihood of academic success on the part of young people. It also allows the Comité de gestion to renew the commitment to educational catch-up measures in underprivileged areas.







**Chapter 1** 

# Education in Underprivileged Areas

The poverty of "having" is often accompanied by a poverty of "being," such as the loss or lack of self esteem or of the recognition of others and a poverty of "ability," such as the ability to act on or influence one's physical or social environment.

## 1.1 Socio-Economic Underprivilege Concept

Socio-economic underprivilege corresponds to a state of disadvantage measured by comparing the socio-economic conditions of individuals and of groups of individuals. This state of disadvantage signifies "having less" than the average or than most people with whom the comparison is being made; when this "having less" results from socio-economic conditions, we see less income, less education, less access to the job market, and less participation in community life. The poverty of "having" is often accompanied by a poverty of "being," such as the loss or lack of self esteem or of the recognition of others and a poverty of "ability," such as the ability to act on or influence one's physical or social environment.

There are numerous negative consequences of socio-economic underprivilege, and they are not limited to physical deprivation. They include food insecurity, poor housing conditions, physical and mental health problems, developmental delay in children, and social isolation. The effects of underprivilege are more present and more significant when it is prolonged, extending over several years, rather than temporary – resulting from short-term loss of employment, for example.

#### **Underprivileged Areas**

The poverty map of the Comité de gestion de la taxe scolaire de l'île de Montréal allows us to compare the level of underprivilege of families with children under the age of 18 according to their place of residence on the territory of school boards on the island of Montréal. The goal

of the map is to identify underprivileged areas, i.e., the geographic sectors on the Island of Montreal where the socio-economic conditions of families are unfavourable.



These underprivileged areas may present different characteristics depending on the causes of underprivilege that have shaped them:<sup>1</sup>

- concentration of single-parent families;
- chronic unemployment;
- recent immigration high turnover of households when those who improve their financial situation leave the underprivileged areas;
- a combination of these causes.

It is also useful to distinguish two types of underprivileged areas: poverty pockets and underprivileged neighbourhoods.<sup>1</sup>

A pocket of poverty or social exclusion is a small concentration of underprivileged populations within a wealthier neighbourhood. Most middle-class or rich neighbourhoods on the Island of Montreal have pockets of relative poverty; likewise, some underprivileged neighbourhoods have blocks of wealthier households.1

Underprivileged neighbourhoods occupy larger areas with concentrations of major social problems such as unemployment, poverty, singleparent families, and crime.



Whatever their socio-economic status, the attitudes and behaviour of individuals are influenced by their immediate environment, whether that be their work environment, school environment, or neighbourhood. In any given socio-economic environment, the codes of conduct and the values that underlie them generally emanate from the groups that are in authority or in the majority. In environments where education is valued and academic failure is viewed negatively, the chances for success and graduation are much higher.

In Neighborhoods, Poverty and Children's Well-being: A Review, Anne R. Pebley and Narayan Sastry observe that growing up in a poor neighbourhood has a negative impact on the well-being and development of children, and that impact is felt over and above that



of the family's socio-economic status. Many experts believe that residential segregation is a key mechanism in the intergenerational transmission of inequality. They attribute this to the fact that restricting families to neighbourhoods where there is a concentration of poverty reduces their chances of escaping it. Indeed, in poor neighbourhoods, the cost of housing is low, the risk of being the victim of a criminal act is higher, there are fewer well-paid jobs, exposure to disease and drug abuse is greater, and individuals are more socially isolated. So residential segregation, associated with the fact of living in a neighbourhood with a high concentration of poverty, could be a significant determiner of the family's socio-economic status and thus have a major indirect influence on the well-being and development of children.9



The concentration of underprivileged populations within an area generates a mass effect that handicaps people who are already made vulnerable by their economic or family situations. This concentration of underprivilege has a significant impact on the composition of educational environments.<sup>1</sup>

Families living in poverty pockets would thus at lower risk of developing a culture of poverty than are those living in underprivileged neighbourhoods, where the dominance of the socio-economic status affects behaviour, the social dynamic is different, and the context effects are necessarily present.<sup>1</sup>

#### 1.2 Impact of Socio-Economic Underprivilege on Academic Success

Socio-economic underprivilege leads to marginalization and social exclusion. For young people, non-participation in community life primarily means non-participation in school life. Indeed schooling is the key permitting children from underprivileged families to eventually escape their condition and experience upward mobility.<sup>2,4</sup>

There is a link between underprivilege and:<sup>2,17,18</sup>

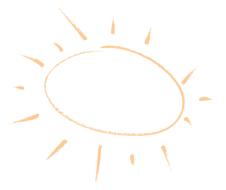
- school changes;
- delayed development in terms of language and school readiness;
- hyperactivity.

There is also abundant evidence that the **cumulative effects** of the family situation have profound repercussions on the children's education level. Studies carried out in the United States and the United Kingdom have systematically shown that factors linked to the children's family situation are also closely tied to the likelihood that they will drop out of school. These factors include:

- the socio-economic status: children from poor neighbourhoods are more likely than others to leave school early;
- the family structure: children from large and single-parent families are more likely than others to drop out;
- the parents' employment status: children whose parents are unemployed are more likely than others to abandon their studies altogether.

In general, these studies show that the link between dropping out of school and the socio-economic status appears early in life, varies with the age of the child, and persists until high school.<sup>5</sup>

Closer to home, a Québec study has found that there was a correlation between the number of risk factors, including a low family income as well as the low education level of the mother, and the risk of delayed development in children.<sup>19</sup>



Studies have also revealed that the **neighbourhood** has an impact on cognitive abilities during childhood and on school dropouts, even when differences in the socio-economic characteristics of families are controlled. Most studies in this area focus on older children since it is presumed that the neighbourhood's impact on school-aged children is stronger because of their greater involvement in the community.

Nevertheless, it appears that the characteristics of the community and the neighbourhood also have a significant influence on maintaining a healthy development during early childhood in every area linked to school readiness. Several characteristics of the neighbourhood interfere with school readiness: difficulty speaking the official language, a low percentage of adults having completed high school, a low income, a low level of social cohesion, and unsafe conditions in the neighbourhood.<sup>8,10,18,19</sup>

The geographic **concentration** of underprivilege can result in a concentration of underprivileged students within certain schools. In the public system, students generally attend primary schools close to their homes; therefore, schools in underprivileged areas will have underprivileged school populations.

Schools in underprivileged areas will have underprivileged school populations.





**Chapter 2** 

# 2018 Poverty Map of the Comité de gestion de la taxe scolaire de l'île de Montréal

The 2018 Poverty Map of the Comité de gestion de la taxe scolaire de l'île de Montréal is composed of two fundamental elements: the base poverty map and the overall underprivilege index. These two components have been updated and adapted to the socio-demographic evolution of the territory served by the school boards on the Island of Montréal. This includes the Island of Montréal and the Vaudreuil-Soulanges Regional County Municipality (RCM), where the English-speaking population is served by the Lester B. Pearson School Board.

## 2.1 Dividing the Island of Montréal into Zones

The base map shows the division of the territory. The territory served by the school boards on the Island of Montréal has been subdivided into 486 zones. Each zone is home to an average of 459 families with children under the age of 18. A zone is defined as a collection of smaller areas known as dissemination areas (Das), each sharing common

socio-economic characteristics. The overall underprivilege index was calculated per zone.

As zones include dissemination areas that are not necessarily adjacent, the 2018 poverty map must be read in terms of dissemination areas rather than zones. As a result, the poverty map shows the boundaries of the 3,373 dissemination areas covering the Island of Montréal and the Vaudreuil-Soulanges RCM.

#### 2.2 Overall Socio-Economic Underprivilege Index

#### 2.2.1 Target Population

The population targeted by the poverty map of the Comité de gestion de la taxe scolaire de l'île de Montréal is composed of families with children under the age of 18 living on the Island of Montréal or in the Vaudreuil-Soulanges RCM, which corresponds to the area served by school boards on the Island of Montréal. These families may also have one or more children of full age living at home.

#### **Children in Census Families**

For a child to be considered a family member, they must be living with one or both of their parents. This includes grandchildren living with at least one of their grandparents in a household where the parents are absent.





## 2.2.2 Variables of the Overall Underprivilege Index

The overall underprivilege index is composed of four variables: family income, mother's education, female lone-parent families, and parents' economic activity. The data used to calculate the overall underprivilege index were taken from two sources: the 2016 Canadian Census and the Program of support for the children of Retraite Québec.

#### **Family Income**

Data from the "income" variable have been collected from the Retraite Québec and pertain to families with children under the age of 18 eligible to the Child Assistance Program. This program is universal, even the wealthiest families may receive a minimum allocation. Nevertheless, all families must reside in Québec and have filed a tax return to benefit from the program.

The "income" variable combines two sets of data:

- the median net annual income of eligible families;
- the percentage of families receiving the maximum amount.

The median income is located at midpoint on the income scale. Half of the families have a higher income and the other half have a lower income. The data used correspond to the net annual income reported in 2017.

Families eligible to the maximum amount under the Child Assistance Program are the most underprivileged families in terms of revenue. The amount allocated varies according to household income and the number of children under the age of 18 living with the family. This amount is indexed on a yearly basis. The parameters that allow establishing the amount allocated are the same across the province of Québec. Data that pertain to the percentage of families receiving the maximum amount are based on the net household income for 2017.

Table 1 allows for the comparison of the median net annual income of families with children under the age of 18 living on the Island of Montréal with that obtained for similar families across Québec. Based on the ratio between the value computed for the Island of Montréal and that for the province as a whole, in 2014, the median income of families living in Montréal only amounted to 73% of the median income for all Québec families. The situation of families living in Montréal seems to have slightly improved over recent years when compared to the rest of the province.

Table 2 compares the situation on the Island of Montréal with that observed in the province as a whole as regards the percentage of families with children under the age of 18 who receive the maximum amount from the Child Assistance Program; i.e., families with the lowest income. Over recent years, the percentage for the Island of Montréal has constantly been higher than that reported for the province of Québec.

**Table 1 -** Median Net Annual Income of Families Eligible to the Retraite Québec Child Assistance Program

Year	Island of Montréal	Province of Québec	Ratio: Island of Montréal / Province of Québec (e.g.: 47,163 ÷ 64,424)
2014	\$47,163	\$64,424	0.73
2015	\$49,244	\$66,300	0.74
2016	\$50,843	\$67,349	0.75
2017	\$52,799	\$68,839	0.77

Source: Retraite Québec. Ratios calculated by the Comtié de gestion.

**Table 2 -** Percentage of Families with the Maximum Amount from the Retraite Québec Child Assistance Program (amount based on the net family income of the previous year)

Year	Island of Montréal	Province of Québec	Ratio: Island of Montréal / Province of Québec (e.g.: 45.8 ÷ 32.1)
2014	45.8%	32.1%	1.43
2015	45.0%	31.6%	1.42
2016	44.2%	31.2%	1.42
2017	42.8%	30.3%	1.41

Source: Retraite Québec. Ratios calculated by the Comité de gestion.



Studies led in Canada have shown that children living in poverty are more often affected by delay in language development and poor academic performance.



Studies led in Canada have shown that children living in poverty are more often affected by delay in language development and poor academic performance. They are less ready for school than the children of average socioeconomic circles.<sup>32</sup>

Based on data from the National Longitudinal Survey of Children and Youth (NLSCY), household income is a significant predictor of 6 of the 11 readiness-to-learn measures in children aged 5. In every case, children from lower income households scored lower than their counterparts who lived in more affluent households in terms of receptive vocabulary, communication skills, knowledge of numbers, copying and using symbols, attention, and cooperative play.<sup>29</sup>

A summary of American studies has allowed comparing underprivileged children with other children. It appears that the risk of being held back and dropping out of school before completion of secondary studies is twice as high. They are also more likely to suffer from learning disorders and may present mental health or behaviours problems reported by parents. Moreover, children from underprivileged families are clearly more likely to live in poverty as adults than are children from wealthier families. Poverty is allegedly passed on from generation to generation and, even in times of economic upswings, such populations fail to improve their situation.30



#### **Mother's Education**

The "mother's education" variable is defined as the highest degree, diploma, or grade completed by the mother. For instance, a high school diploma may also be a certificate, a certification, or a trade school diploma. Two categories have been held for this variable:

- the percentage of families where the mother has no high school diploma or any equivalent, among families with children under the age of 18 and where the mother is present;
- 2) the percentage of families where the mother has no post-secondary diploma or any equivalent, among families with children under the age of 18 and where the mother is present.

The data found in Tables 3 and 4 show how the mother's education has evolved between 2011 and 2016. The situation has improved on the Island of Montréal as well as in Québec and Canada as a whole.

The percentage of mothers without a post-secondary diploma is now clearly higher on the Island of Montréal than in the province of Québec as a whole (Table 4). It is also higher than the Canadian average.

The education of parents, particularly that of the mother, is an efficient predictor of academic success.<sup>5,8,15</sup>

The education of both parents has an influence on students' academic aspirations, while the education of the mother is closely linked to academic performance, namely results for the mother tongue. In all OECD countries, for young people, the fact of having a mother who

**Table 3 -** Percentage of Families With a Mother Without a High School Diploma or Any Equivalent Among Families With Children Under the Age of 18

Census Year	Island of Montréal	Québec Average	Canadian Average
2011	11.0%	10.6%	10.0%
2016	9.2%	8.7%	8.4%

Source: Statistics Canada, Canadian Census 2011 and 2016.

**Table 4 -** Percentage of Families With a Mother Without a Post-Secondary Diploma or Any Equivalent Among Families With Children Under the Age of 18

Census Year	Island of Montréal	Québec Average	Canadian Average
2011	37.8%	43.2%	39.6%
2016	33.1%	29.0%	25.6%

Source : Statistics Canada, Canadian Census 2011 and 2016.

has completed upper secondary studies represents an advantage for results in written comprehension, with a marked advantage when the mother has completed university. Consequently, results are significantly lower when the mother has not achieved completion of secondary studies. When parents have high expectations, children invest more

effort and academic results are higher. High aspirations on the part of the parents, early on in preadolescence, have positive effects when it comes to persistence in school. School drop-outs report lower aspirations from their mother. Additionally, school drop-outs are more likely to come from a family with parents who dropped out as

well, which suggests once more that family standards and aspirations do play somewhat of a role. Students whose parents have positive aspirations with respect to post-secondary studies tend to follow this path. On the other hand, students whose parents fail to express such aspirations are more likely to interrupt their studies as soon as they have obtained their high school diploma. High aspirations are particularly important for teenagers from underprivileged areas.<sup>24,25,26</sup>

Data collected from the Québec Longitudinal Study of Child Development reveal that children with a mother who has not completed post-secondary studies are more likely to suffer from delayed development in language than those whose mother holds a nongraduate post-secondary diploma. In turn, the latter are at a disadvantage compared with children whose mother has completed university.<sup>17</sup>

#### **Female Lone-Parent**

The "female lone-parent" indicator corresponds to the percentage of single-parent families headed by a female among families with children under the age of 18. A lone-parent family could also be composed of a grandparent living with one or more grandchildren in a household where the parents are absent.<sup>7</sup>

Table 5 shows how the percentage of single-parent families headed by a female has evolved over a 15 year period. Table 5 also shows the Montréal percentage in that regard versus the Québec and Canadian

averages. The percentage dwindled progressively on the Island of Montréal. Conversely, the Québec and Canadian averages both went slightly up during the same period. Nevertheless, the percentage on the Island of Montréal remains higher than the Québec and Canadian averages.

Studies carried out in the United States and the United Kingdom have shown that the family structure is closely tied to the likelihood that children will drop out of school or not: children from large and single-parent families are more likely than others to drop out.<sup>5</sup>

**Table 5 -** Percentage of Single-Parent Families Headed by a Female Among Families with Children Under the Age of 18

Census Year	Island of Montréal	Québec Average	Canadian Average
2006	22.9%	18.6%	18.0%
2011	22.2%	18.7%	18.5%
2016	21.2%	18.7%	18.4%

Source: Statistics Canada, Canadian Census of 2006, 2011 and 2016.





A wide range of proposals have been put forth as a means to explain the correlation between family structure and the education level of young people. The low income of single-parent families remain a major influence. However, when asked why they dropped out, young people state that it was due to the stress experienced at home; hence, stress caused by the disintegration of the family exposes students to greater risk. One researcher has even demonstrated that the effect of stress is greater during the initial transition toward single parenthood, and diminishes

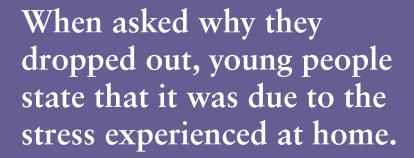
over time. The absence of the father is linked to less parental supervision, which could be related to limited persistence in school. When the father is no longer present, the mother often enters the labour market and is less available for parental supervision.<sup>25</sup>

#### Parents' Activity

The "parents' activity" variable corresponds to the percentage of families where neither parent works full time among families with children under the age of 18. In the case of lone-parent families, only the activity of the single parent is taken into account.

Parents who have not worked or who have worked less than 30 hours during the reference week are not considered as full-time workers. Hours away from work (with or without pay) during the week due to illness, vacations, or other reasons are not accounted for.<sup>7</sup>

Table 6 shows that the percentage of families where neither parent worked full time was lower in 2016 than it was in 2011 on the island of Montréal. This percentage clearly outweighs the Québec and Canadian averages.



**Table 6 -** Percentage of Families Where Neither Parents Worked Full Time During the Reference Week, Among Families with Children Under the Age of 18

Census Year	Island of Montréal	Québec Average	Canadian Average
2011	26.3%	17.8%	18.4%
2016	25.7%	18.0%	19.4%

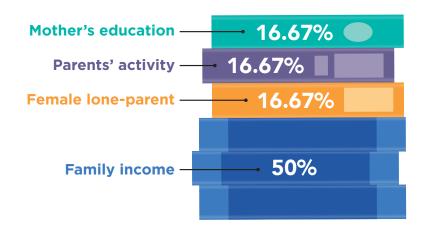
Source: Statistics Canada, Canadian Census, 2011 and 2016.

The parents' employment situation may have a major impact on family resources; e.g., revenue. In comparison with a more stable situation, a reduction in the number of full-time workers in the family unit is more likely to cause entry into low revenue, while an increase in the number of full-time workers is likely to make the exit most probable.<sup>21</sup>

The parents' activity can also have an influence on their children's development. An unstable work situation and unemployment generate stress for parents, which prevents them from being warm and loving, not to mention that it brings about erratic behaviours as well as emotional withdrawal. Ineffective parenting may cause the child to have limited capacities to adapt. Children with unemployed parents are more likely than others to drop out of school. However, the effect is allegedly not as important when the head of the family receives employment insurance, which suggests that financial difficulties in families may influence the children's decision to drop out of school in order to enter the labour market.5,23

Furthermore, a study has shown that high school children who perceive that their parents are worried due to their employment situation are distracted congnitively and get lower academic results. How children perceive their parents' employment situation may condition their perception as to their own economic opportunities for the future. This viewpoint may exert an influence on their academic performance and their attitude vis-à-vis school and employment.<sup>22</sup>

Figure 1 - Weight Allocated to Variables in the Overall Underprivilege Index



There are also exist neighbourhood effects related to the employment status of parents. It was found that the likelihood of dropping out with relation to the quality of the neighbourhood increases in a linear way until the percentage of people with high-status jobs falls below 5%. At such point, there is a marked and disproportionate increase in the number of drop-outs in the most underprivileged neighbourhoods. Moreover, it was observed that when a large number of lay-offs occur in a community, even adults who continue their employment or who are not at grips with financial hardships are more likely to experience depression, stress, or anxiety. Financial worries may alter the quality of the interactions between children and the adults who are important to them, such as teachers. friends' parents, and obviously, their own parents. Researchers have highlighted major and systematic negative effects on the academic performance of such students. It

is to be noted that these effects tend to get worse as the child matures and better understands the situation.<sup>5,20</sup>

### 2.2.3 Overall Underprivilege Index

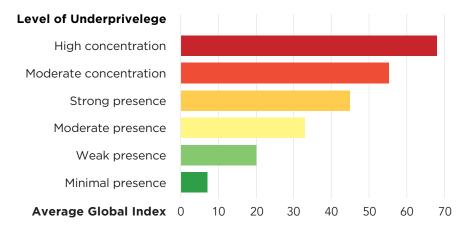
The overall underprivilege index combines the values obtained for each of the four variables in a single measure. The method used to calculate the index assigns greater weight to the "family income" variable than to the others. In fact, the "family income" variable represents half of the total weight (50%), while the other three variables share the other half equally, with each one accounting for 16.67% of the total weight (Figure 1).

The overall underprivilege index thus corresponds to the weighted average of the values attributed to each of the four variables (see Section 3.2).

## Levels of Socio-Economic Underprivilege

The values in the overall underprivilege index have been divided into six categories, or levels, using the nested averages method. This allows us to clearly indicate the index values for each dissemination area on a map. Each level of underprivilege is associated with a specific colour and a descriptive label (Table 7).

Figure 2 - Average Global Index by Level of Underprivilege





**Table 7 -** Characteristics of Levels of Socio-Economic Underprivilege

Level of Underprivilege	Number of Zones	% of Zones	Average Index	Minimal Value of Index	Maximum Value of Index
High concentration	51	10.5	68.198	62.163	81.642
Moderate concentration	97	20.0	55.370	50.069	61.951
Strong presence	95	19.5	44.991	39.207	49.923
Moderate presence	96	19.8	33.002	27.029	38.792
Weak presence	97	20.0	20.180	12.536	26.953
Minimal presence	50	10.3	6.936	1.104	12.536
Total	486	100.0	38.263	1.104	81.642



## 2.3 Presentation of the 2018 Poverty Map

The 2018 poverty map of the Comité de gestion de la taxe scolaire de l'île de Montréal uses six colours to indicate the level of underprivilege of families with children under the age of 18. The colours vary from brick red, for a high concentration, to dark green, for a minimal presence of underprivilege. A concentration of underprivilege is considered more problematic than its mere presence since it refers to higher index values.

### 2.3.1 Summary of the map of the Island of Montréal

The map showing the entire Island of Montréal shows locations where underprivilege is concentrated. Some neighbourhoods, such as Petite Bourgogne, Parc-Extension, Montréal-Nord, Saint-Michel, Pointe-Saint-Charles, Ville St-Pierre, Sainte-Geneviève and Côte-des-Neiges are coloured entirely, or almost entirely, in light or brick red. However, there's no direct correspondence between the extent of a dissemination area and the number of families who live there: a large dissemination area may very well be home to few families, while a small dissemination area may be home to a considerably large number of families. In other words, the population density may vary significantly from one area to another.

The current map shows an overall distribution of underprivilege on the Island of Montréal similar to that found in the previous map.

Neighbourhoods which relative position has worsened between 2011 and 2016 are as follows: Pointe-aux-Trembles, Pierrefonds, Dollard-Des Ormeaux, Ville-Marie, Côte-des-Neiges and Sainte-Geneviève. Neighbourhoods which relative position has improved are: Verdun, the Petite-Patrie, Villeray and the Plateau-Mont-Royal.

## 2.3.2 Summary of the map of Vaudreuil-Soulanges RCM

That map shows the geographic distribution of underprivilege in the Vaudreuil-Soulanges RCM.

The municipalities which position deteriorated between 2011 and 2016 are: the Coteaux, Pointe-des-Cascades. The municipalities which position improved are: Sainte-Marthe, Rivière-Beaudette, Ste-Justine-de-Newton, Saint-Zotique.



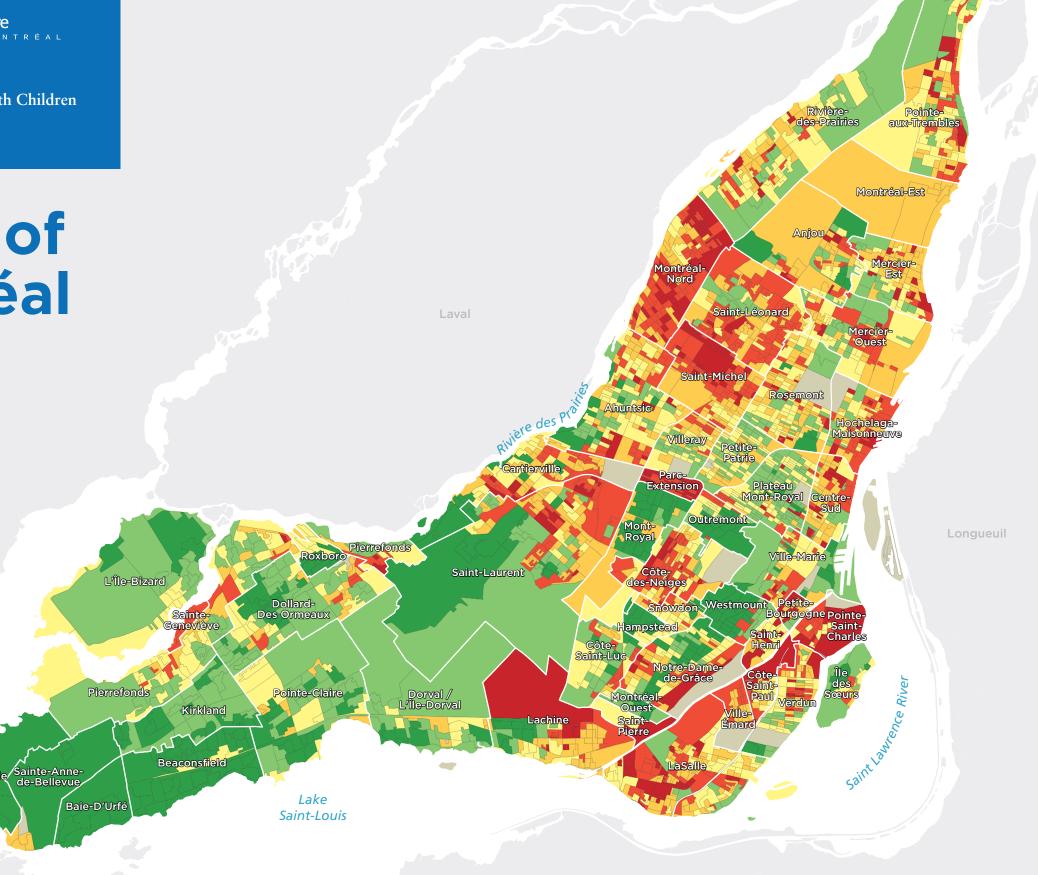
A concentration of underprivilege is considered more problematic than its mere presence since it refers to higher index values.





Poverty Map of Families with Children Under the Age of 18

# Island of Montréal



Level of Underprivilege

Moderate concentration
High concentration
Few or no family

Minimal presenceWeak presenceModerate presence

Strong presence

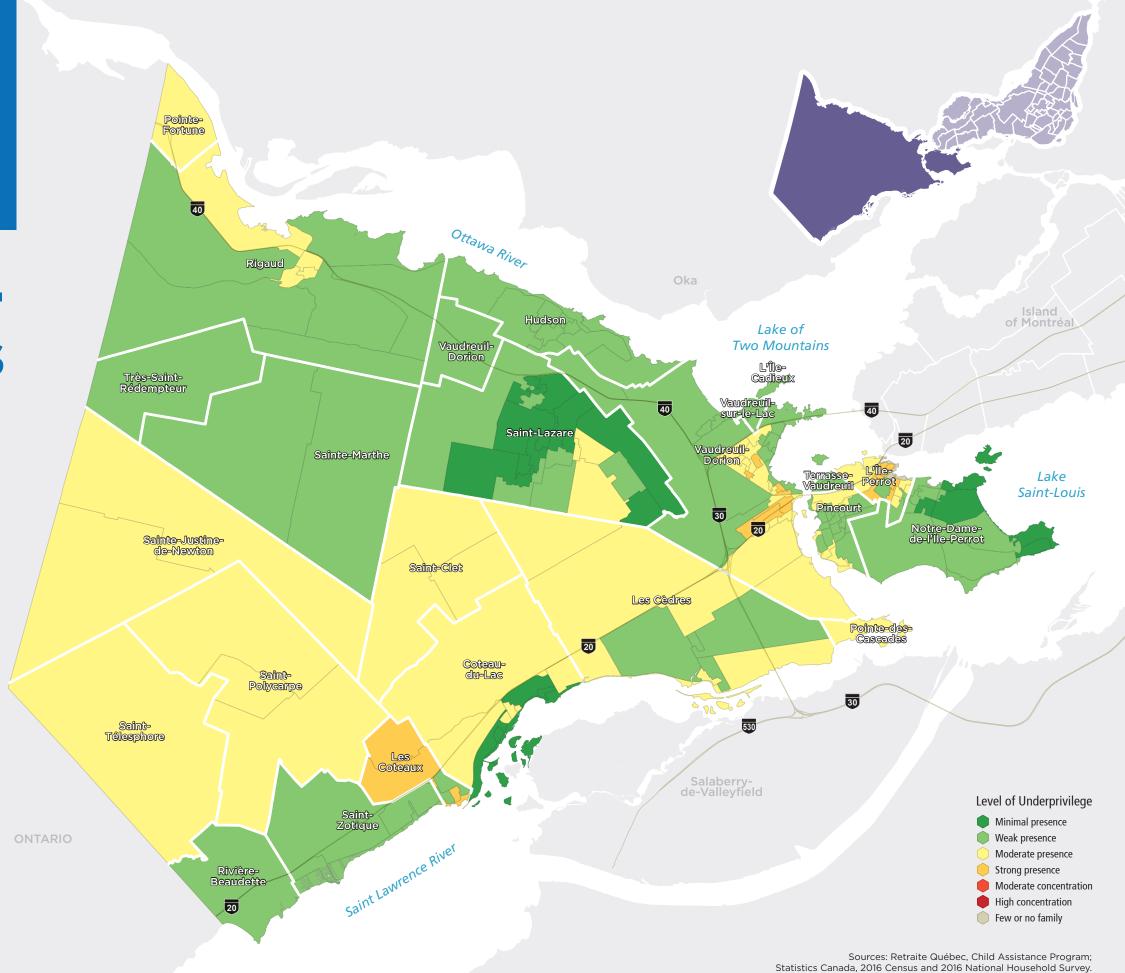
Lake of

Two Mountains



Poverty Map of Families with Children Under the Age of 18

# Vaudreuil-Soulanges RCM



#### 2.3.3 List of Neighbourhoods on the Island of Montréal

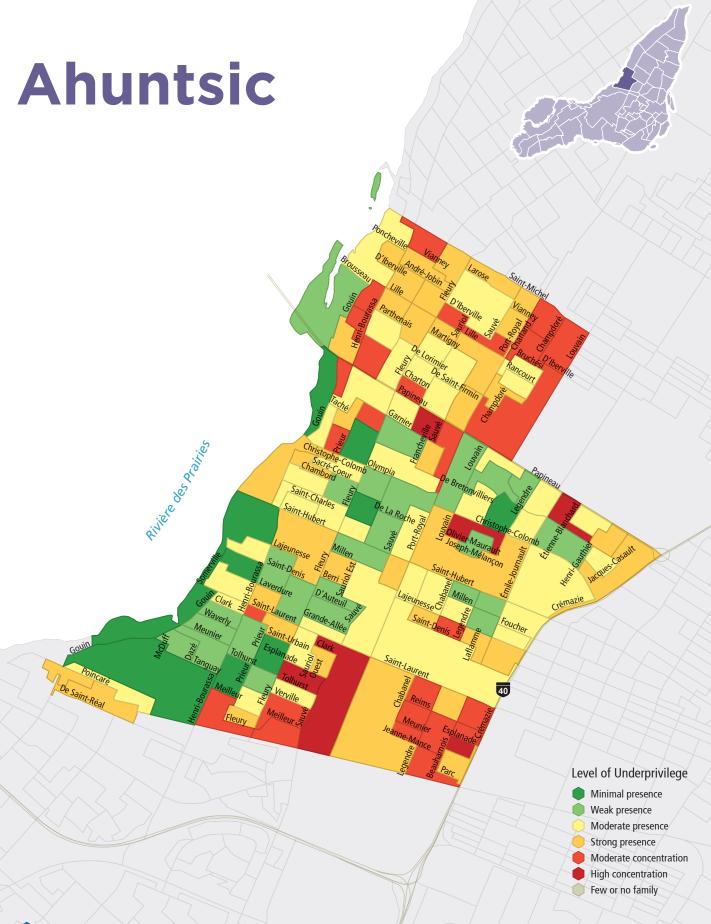
The following maps paint a more accurate picture of the distribution of underprivilege in neighbourhoods on the Island of Montréal.

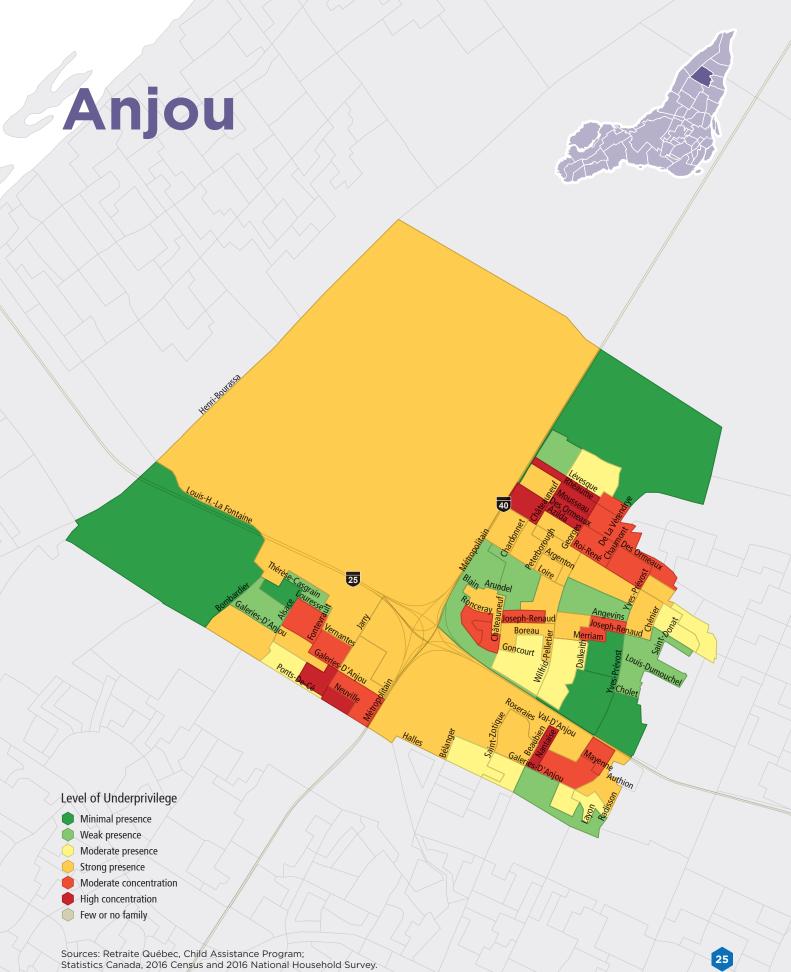
Readers who wish to consult the map of a specific neighbourhood may turn directly to the correct page.

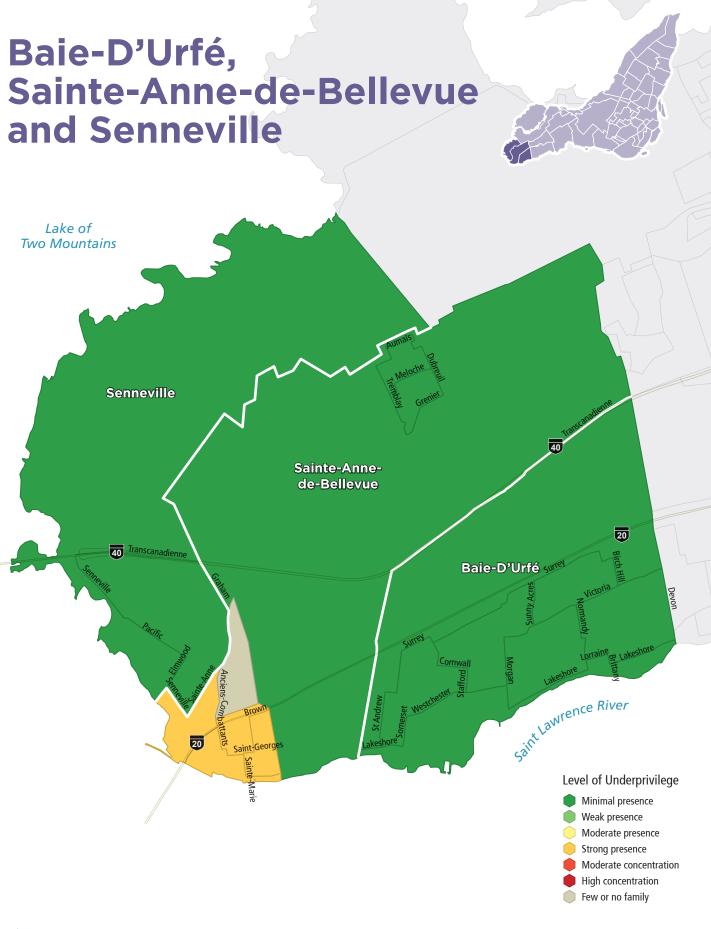
		Neighbourhood	ls		
Ahuntsic	24 L'Île-Biza	ird	40	Rivière-des-Prairies	58
Anjou	25 Mercier-l	Est	41	Rosemont	59
Baie-D'Urfé	26 Mercier-0	Duest	42	Roxboro	33
Beaconsfield	27 Montréal	-Est	43	Sainte-Anne-de-Bellevue	26
Cartierville	28 Montréal	-Nord	44	Sainte-Geneviève	40
Centre-Sud	29 Montréal	-Ouest	45	Saint-Henri	32
Côte-des-Neiges	30 Mont-Ro	yal	46	Saint-Laurent	60
Côte-Saint-Luc	31 Notre-Da	ame-de-Grâce	47	Saint-Léonard	61
Côte-Saint-Paul	32 Outremo	nt	48	Saint-Michel	62
Dollard-Des Ormeaux	33 Parc-Ext	ension	49	Saint-Pierre	45
Dorval / L'Île-Dorval	34 Petite-Bo	ourgogne	50	Senneville	26
Hampstead	35 Petite-Pa	ntrie	51	Snowdon	35
Hochelaga-Maisonneuve	36 Pierrefor	ıds	52-53	Verdun	63
Île-des-Sœurs	63 Plateau N	4ont-Royal	54	Ville-Émard	32
Kirkland	37 Pointe-a	ux-Trembles	55-56	Ville-Marie	64
Lachine	38 Pointe-C	laire	57	Villeray	65
LaSalle	39 Pointe-S	aint-Charles	50	Westmount	66

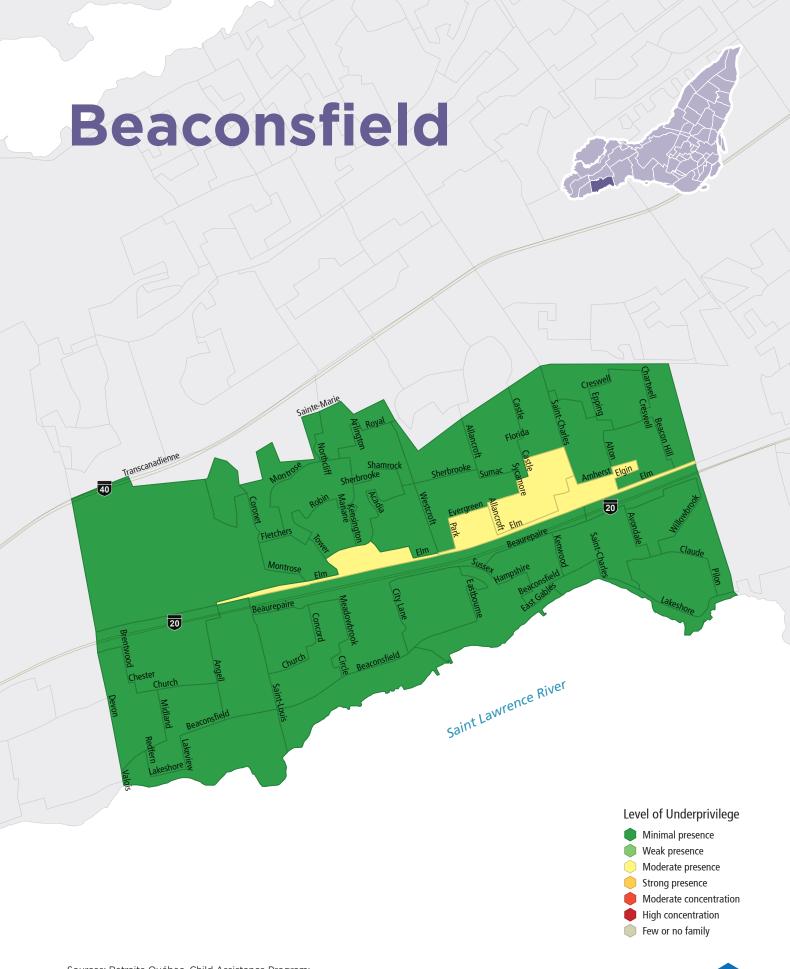
#### 2.3.4 List of municipalites of the the Vaudreuil-Soulanges RCM

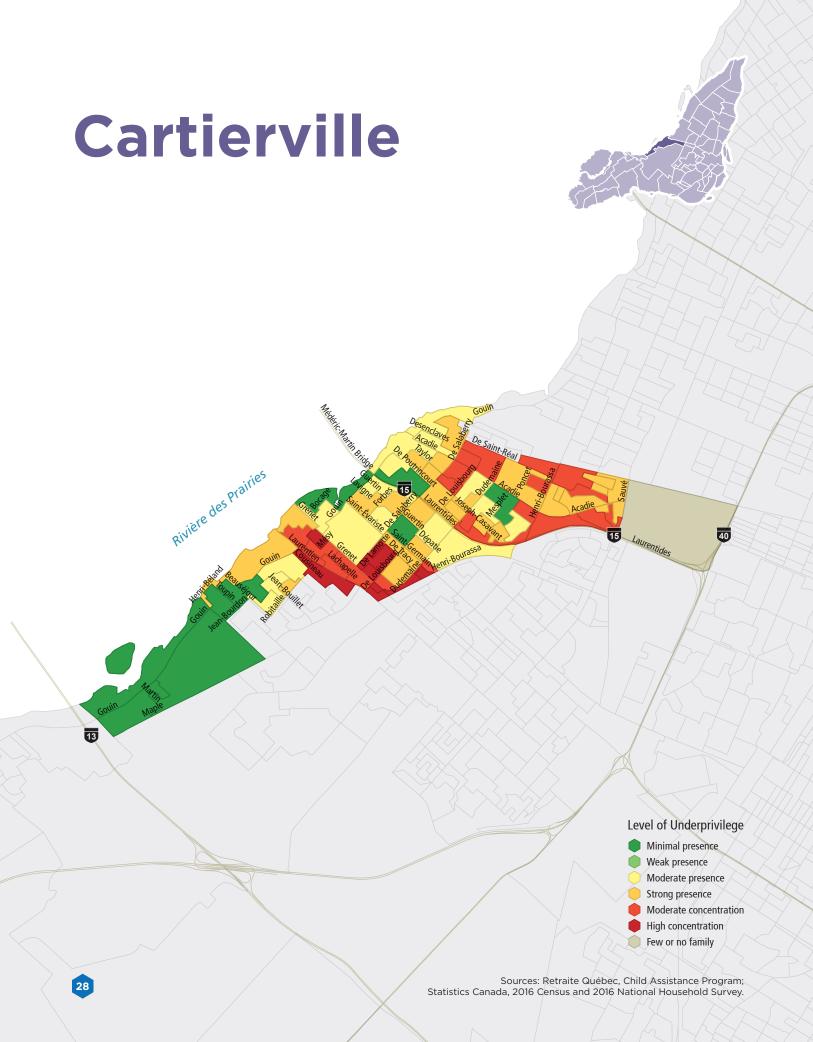
Municipalites				
Coteau-du-Lac	Pincourt	Saint-Lazare		
Hudson	Pointe-des-Cascades	Saint-Polycarpe		
Les Cèdres	Pointe-Fortune	Saint-Télesphore		
Les Coteaux	Rigaud	Saint-Zotique		
L'Île-Cadieux (annexed	Rivière-Beaudette	Terrasse-Vaudreuil		
to Vaudreuil-sur-le-Lac)	Saint-Clet	Très-Saint-Rédempteur		
L'Île-Perrot	Sainte-Justine-de-Newton	Vaudreuil-Dorion		
Notre-Dame-de-l'Île-Perrot	Sainte-Marthe	Vaudreuil-sur-le-Lac		







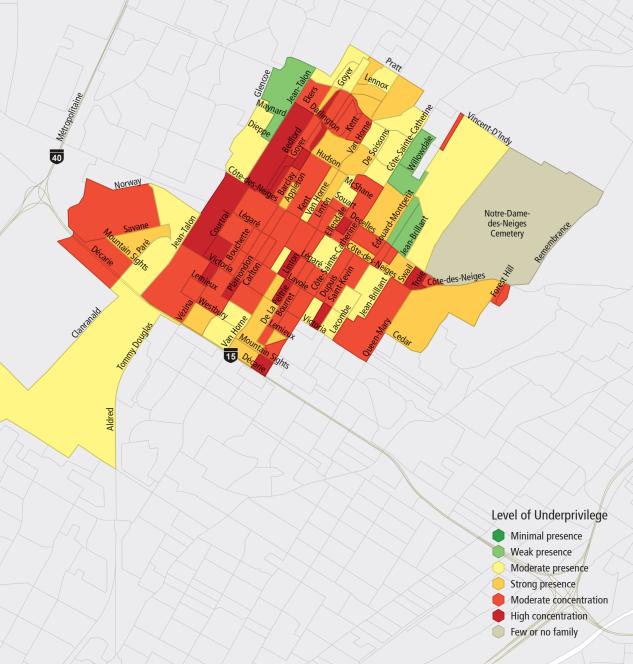




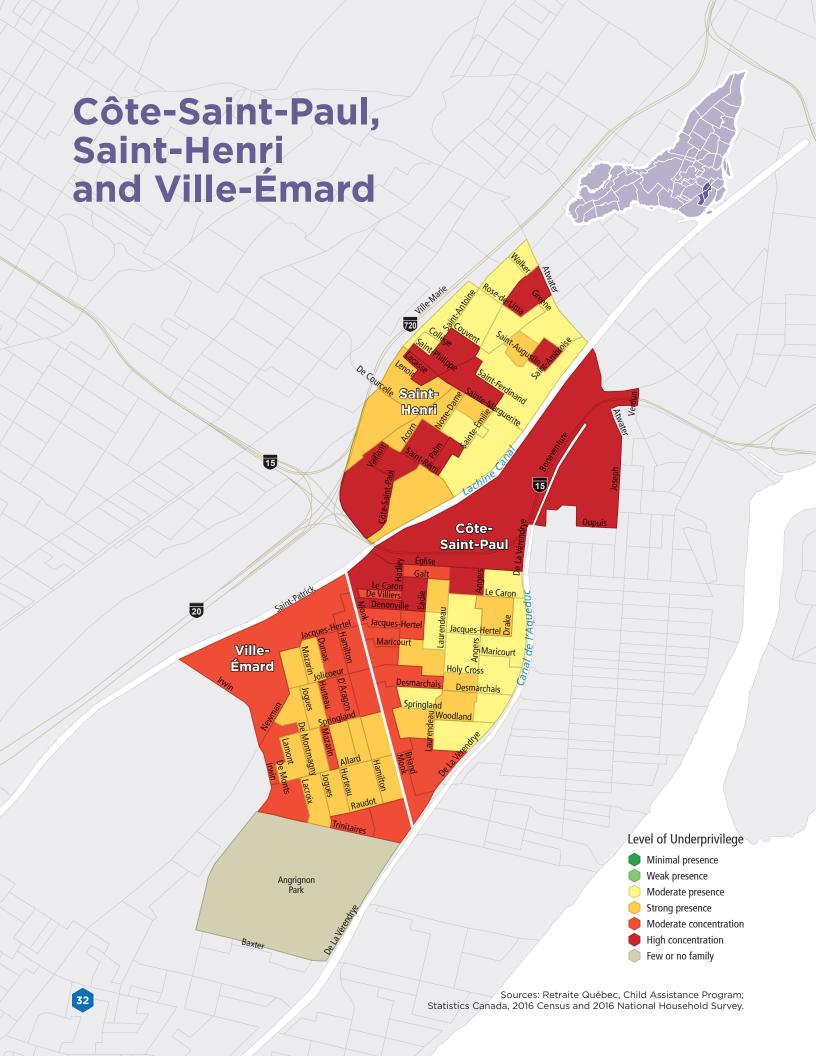
# Centre-Sud Jacques-Cartier Bridge 720 Level of Underprivilege Minimal presence Weak presence Moderate presence Strong presence Moderate concentration High concentration Few or no family Sources: Retraite Québec, Child Assistance Program; Statistics Canada, 2016 Census and 2016 National Household Survey.

# Côtedes-Neiges



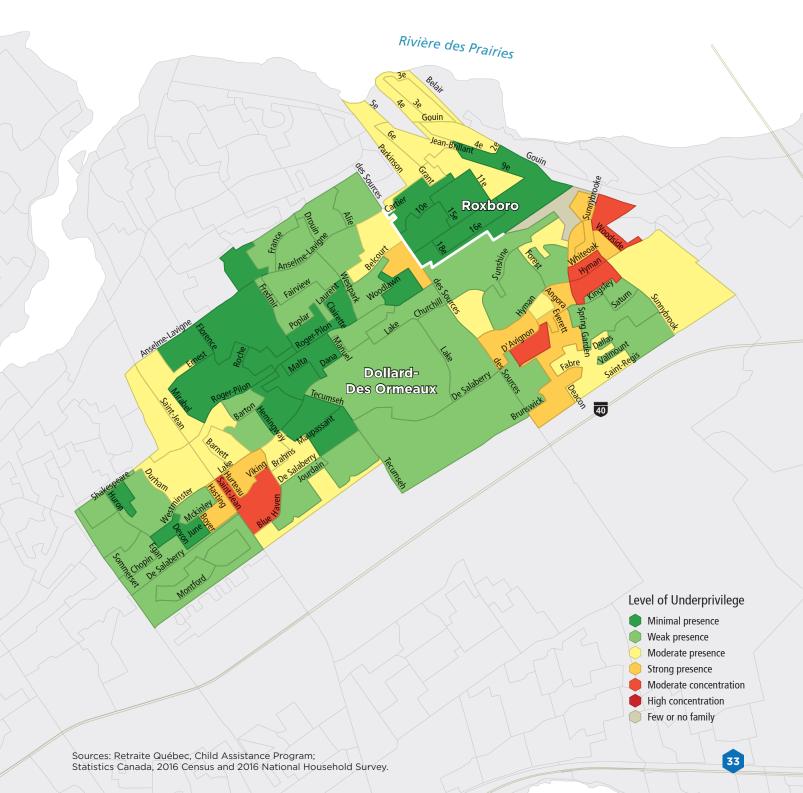


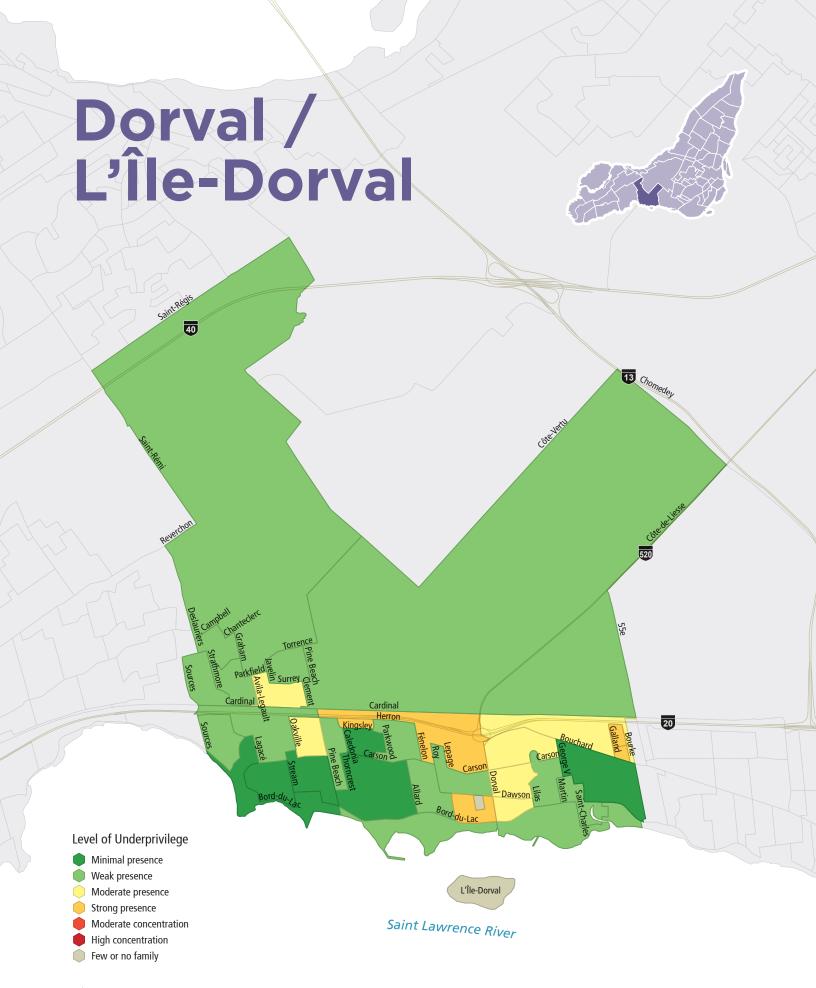
# Côte-Saint-Luc 15 Décarie Parkhaven Level of Underprivilege Minimal presence Weak presence Moderate presence Strong presence Moderate concentration High concentration Few or no family Sources: Retraite Québec, Child Assistance Program; Statistics Canada, 2016 Census and 2016 National Household Survey.



# **Dollard-Des Ormeaux** and Roxboro



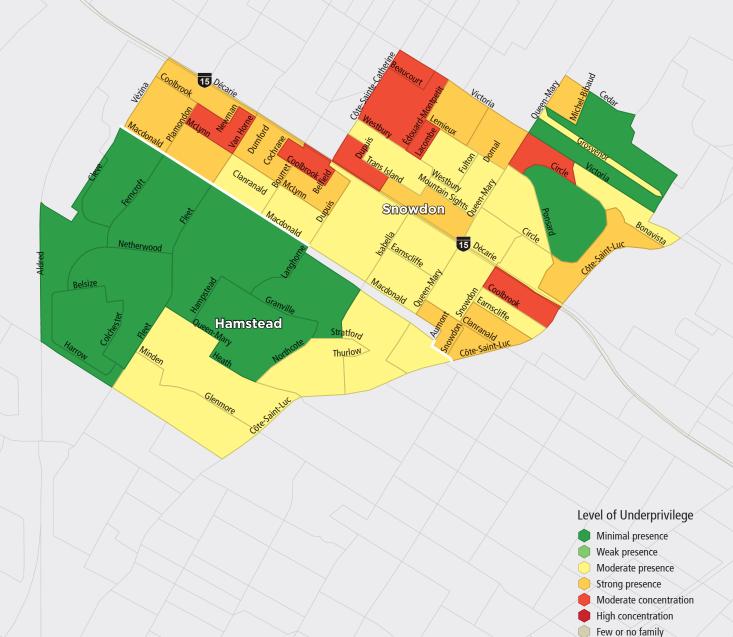






# Hampstead and Snowdon

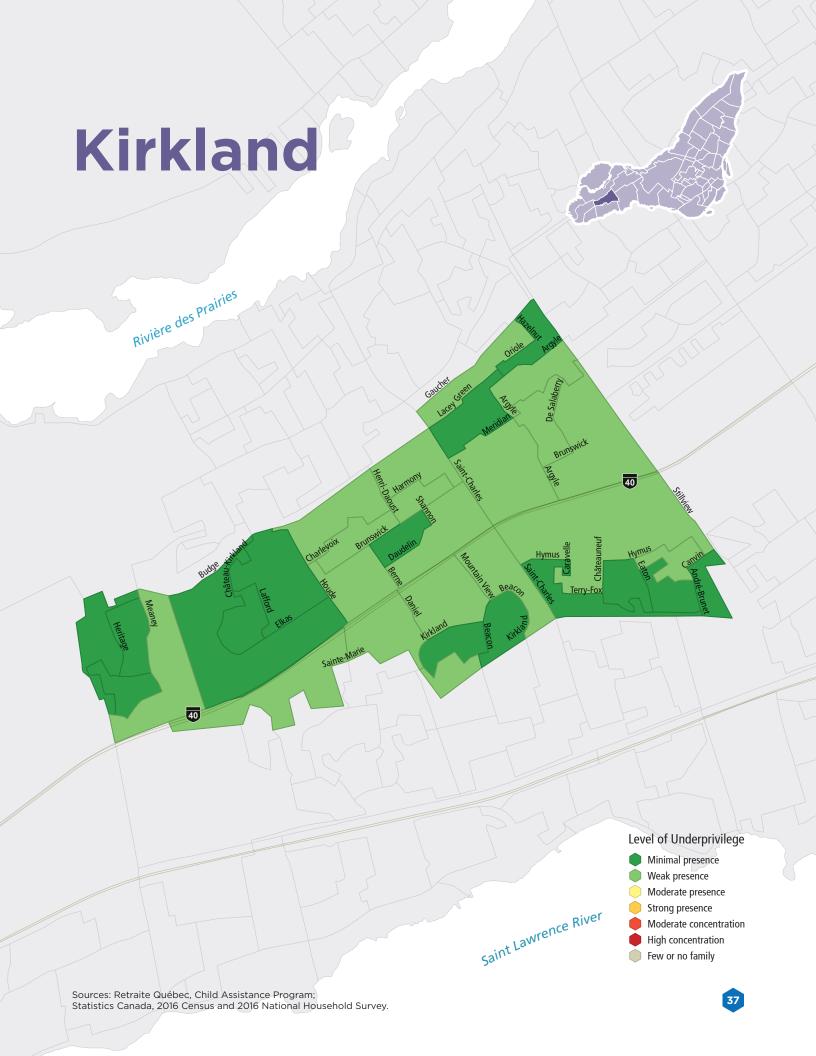


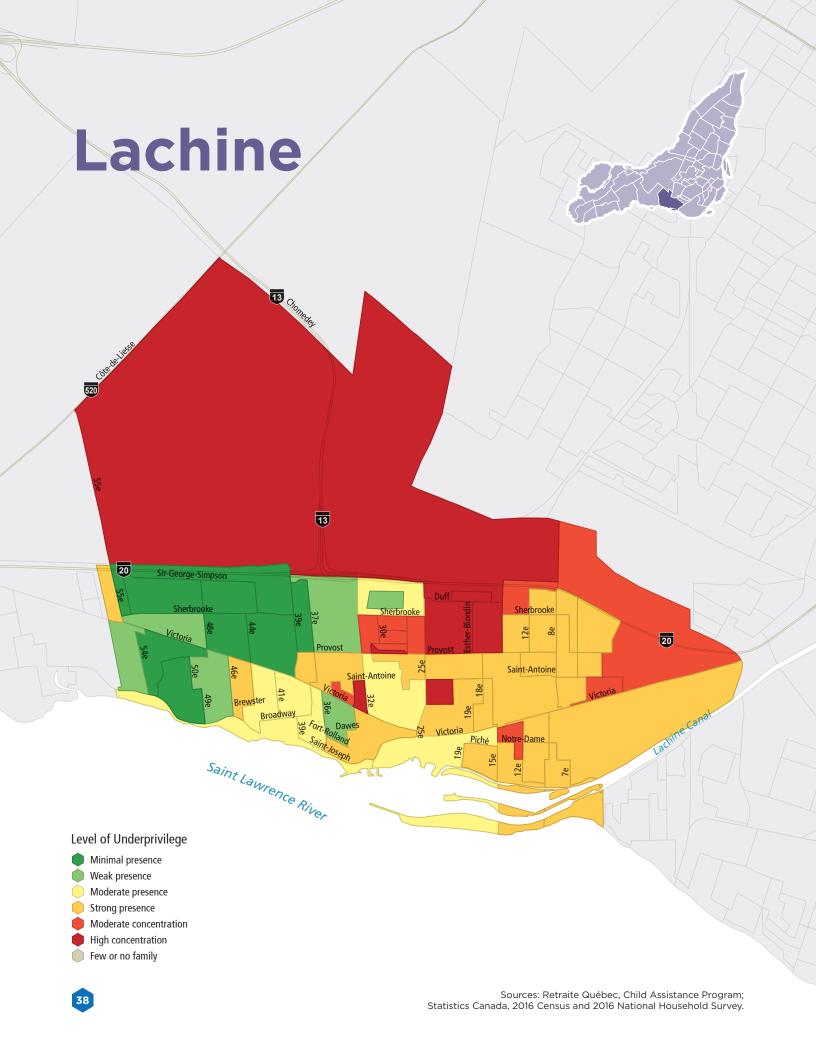


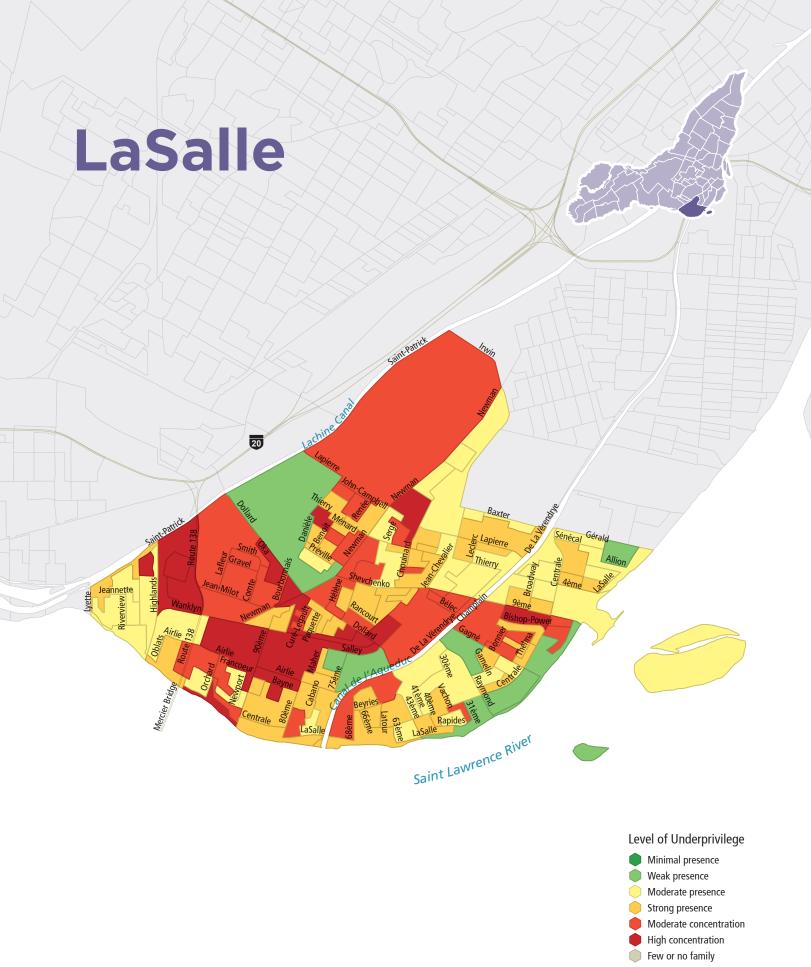
# Hochelaga-Maisonneuve





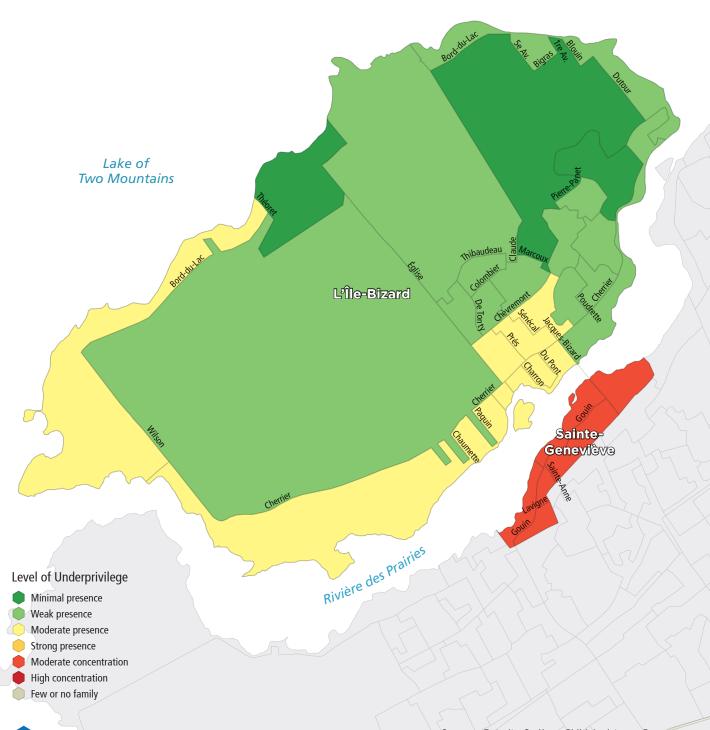




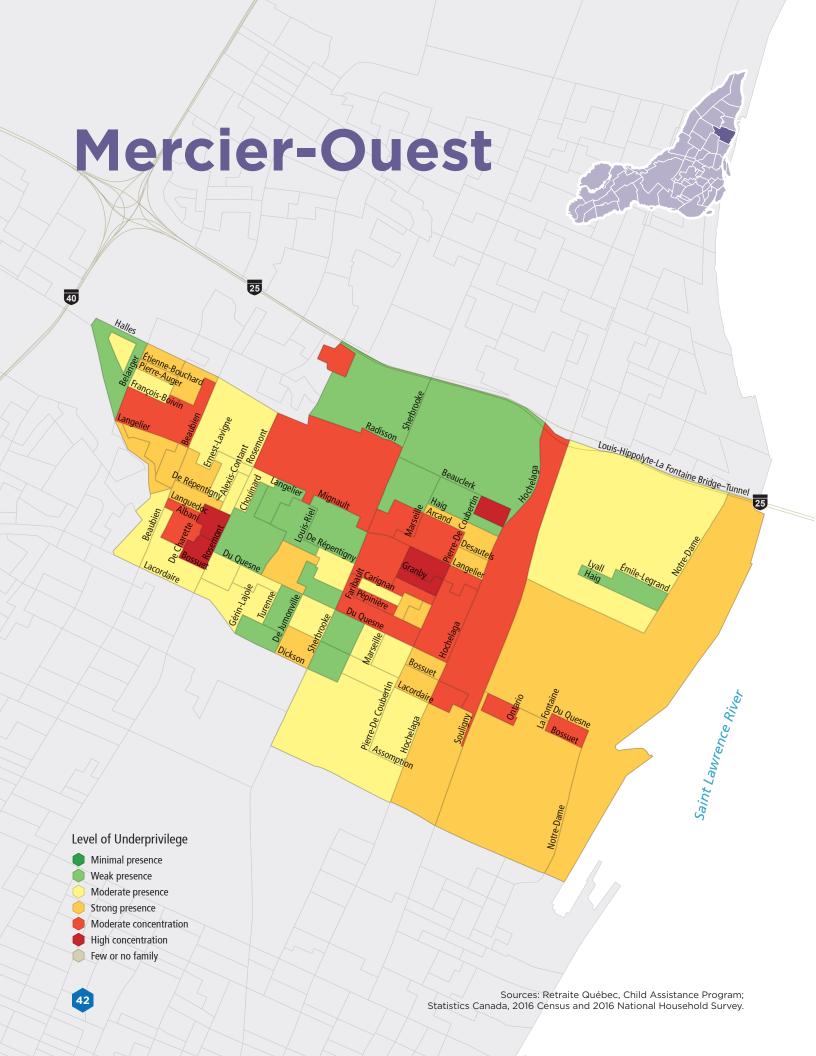


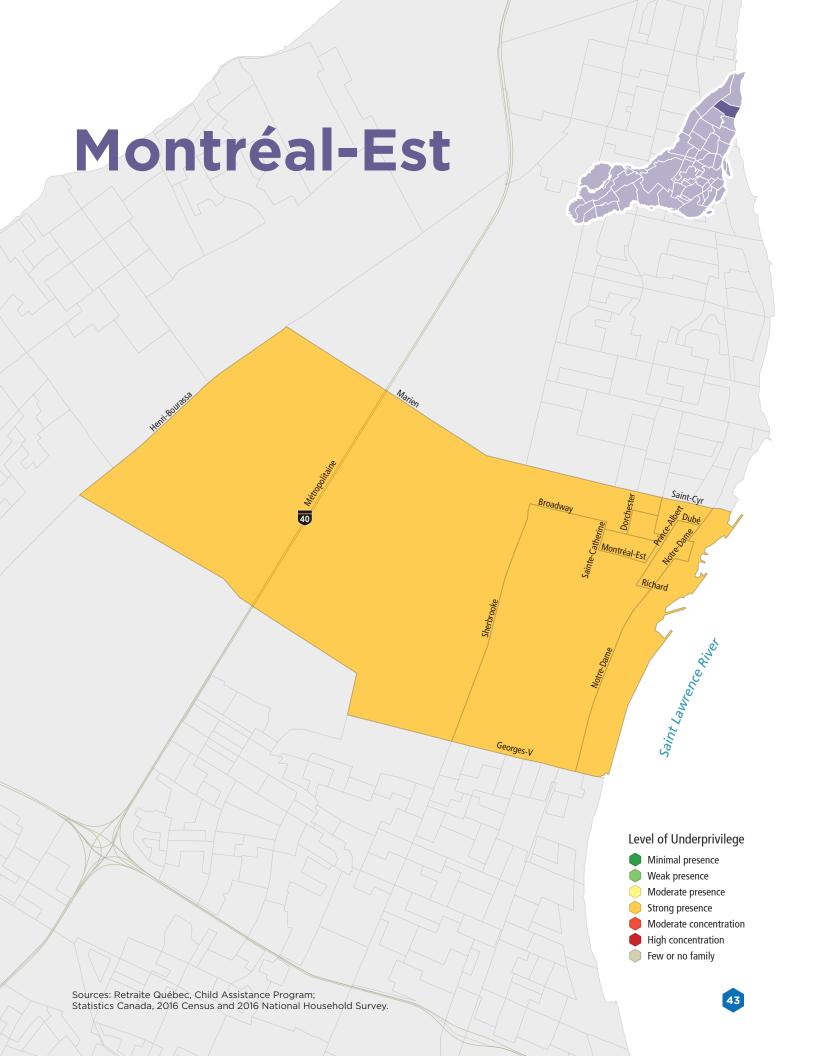
#### L'Île-Bizard and Sainte-Geneviève





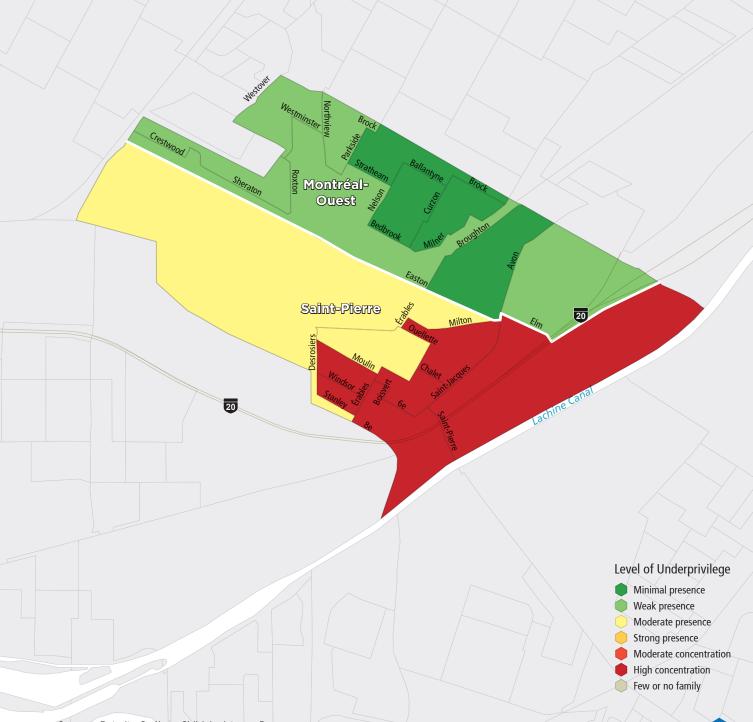
### **Mercier-Est** Hector Desmarteau Saint Lawrence River Pierre-Bernard Saint-Donat Honoré-Beaugrand 25 Boucherville Level of Underprivilege Minimal presence Weak presence Moderate presence Strong presence Tunnel 25 Moderate concentration High concentration Few or no family Sources: Retraite Québec, Child Assistance Program, Statistics Canada, 2016 Census and 2016 National Household Survey.

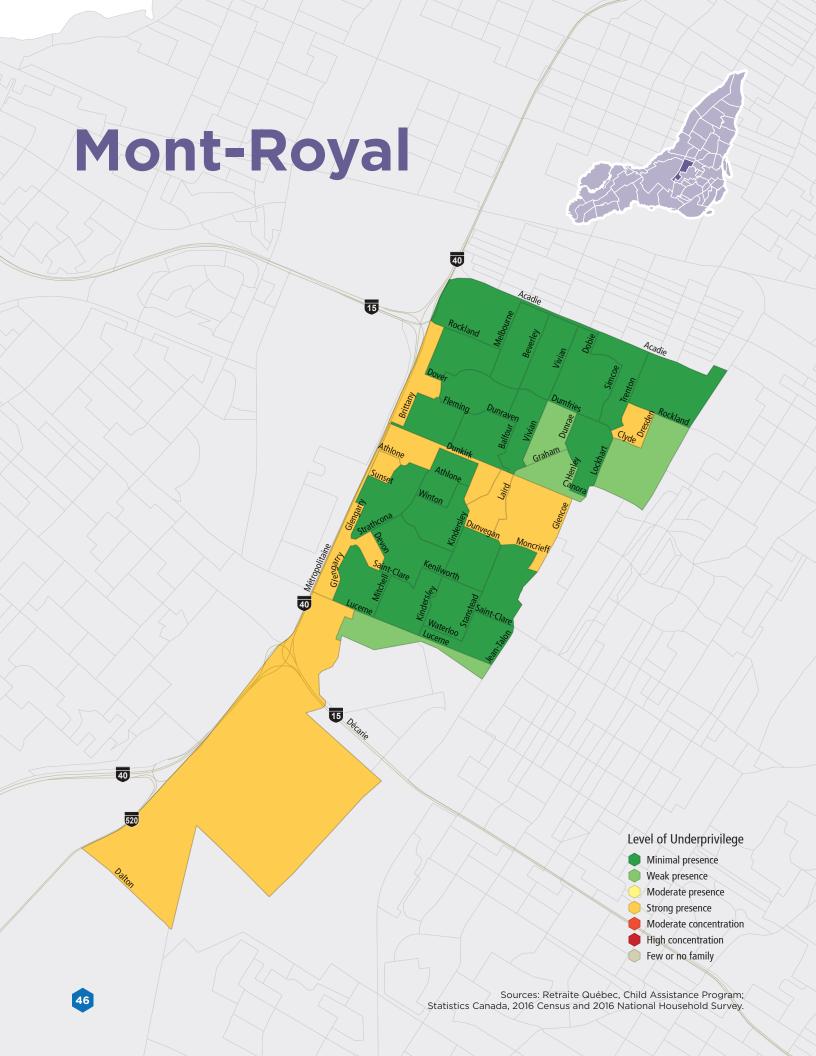




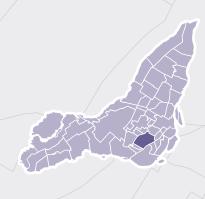
# Montréal-Nord Rivière des Prairies Level of Underprivilege Minimal presence Weak presence Moderate presence Strong presence Moderate concentration High concentration/ Few or no family

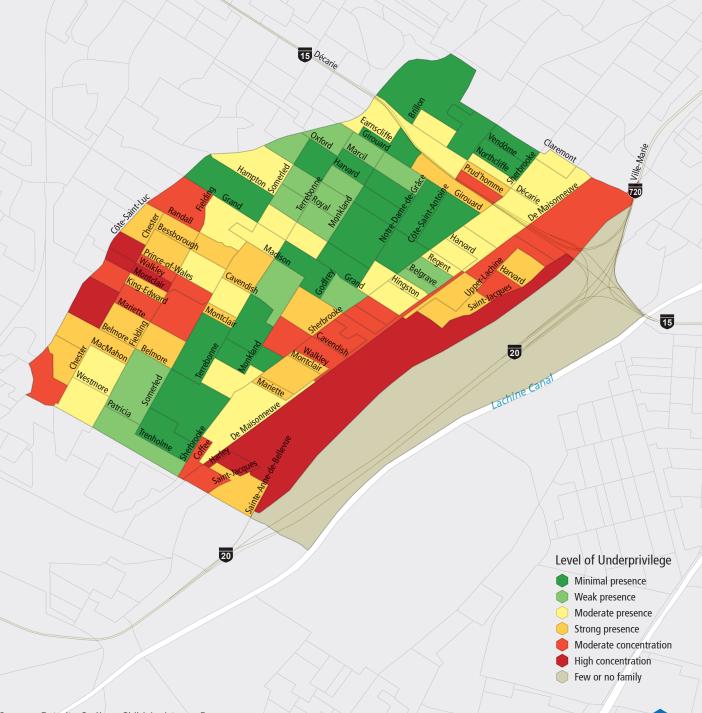
## Montréal-Ouest and Saint-Pierre

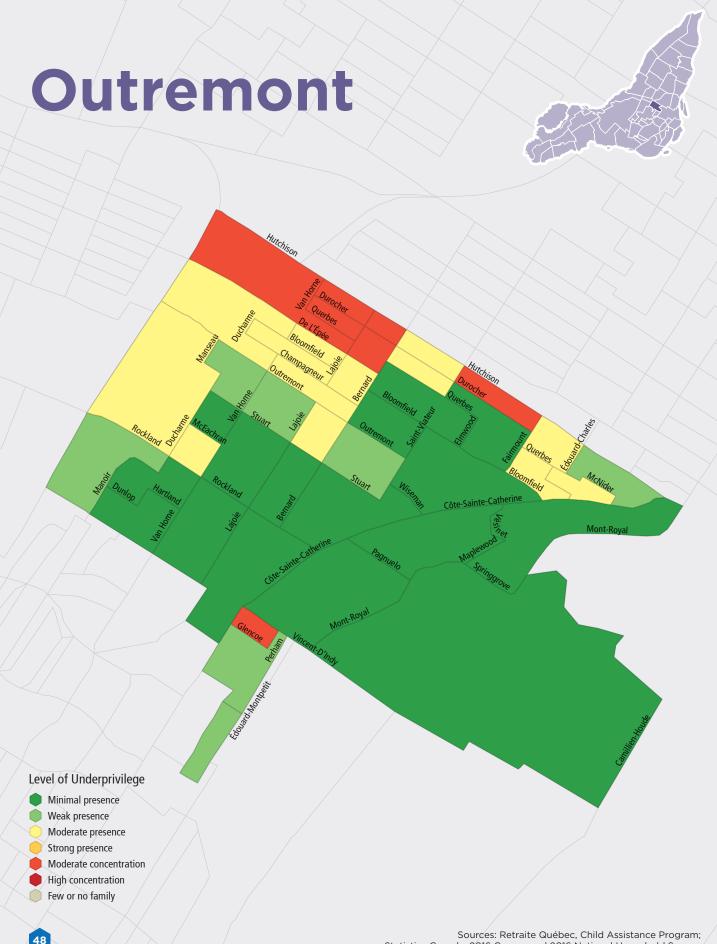




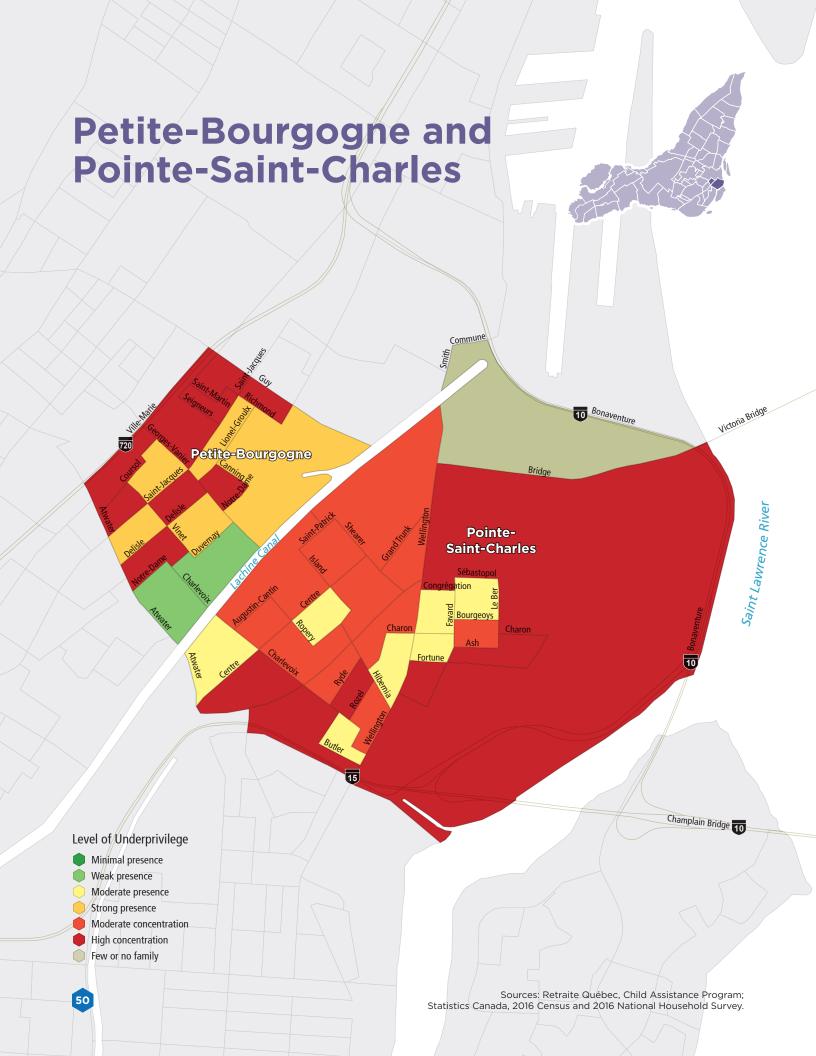
## Notre-Damede-Grâce





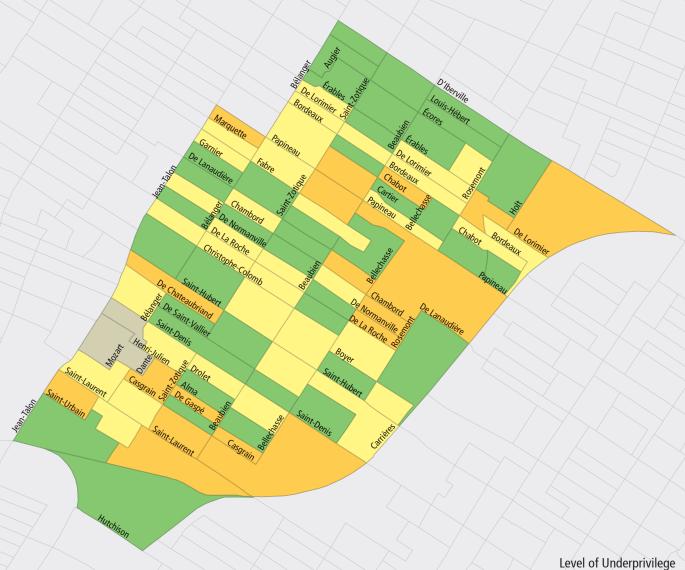


# Parc-Extension Level of Underprivilege Minimal presence Weak presence Moderate presence Strong presence Moderate concentration High concentration Few or no family Sources: Retraite Québec, Child Assistance Program; Statistics Canada, 2016 Census and 2016 National Household Survey.

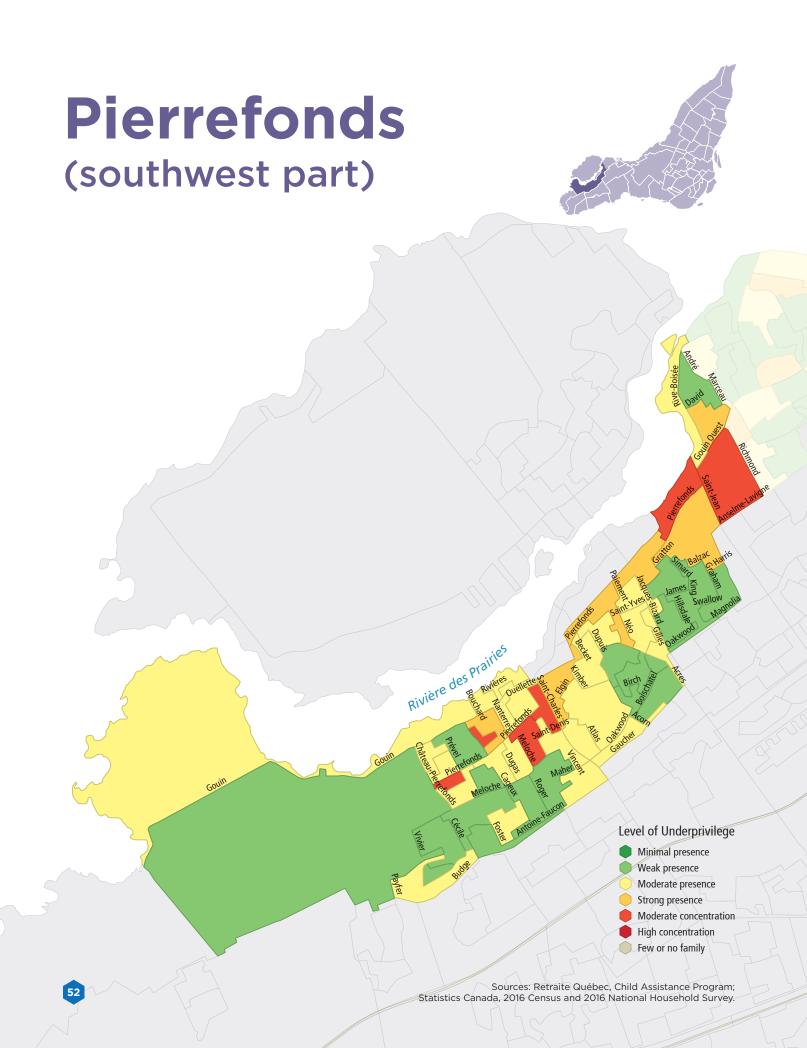


## Petite-Patrie

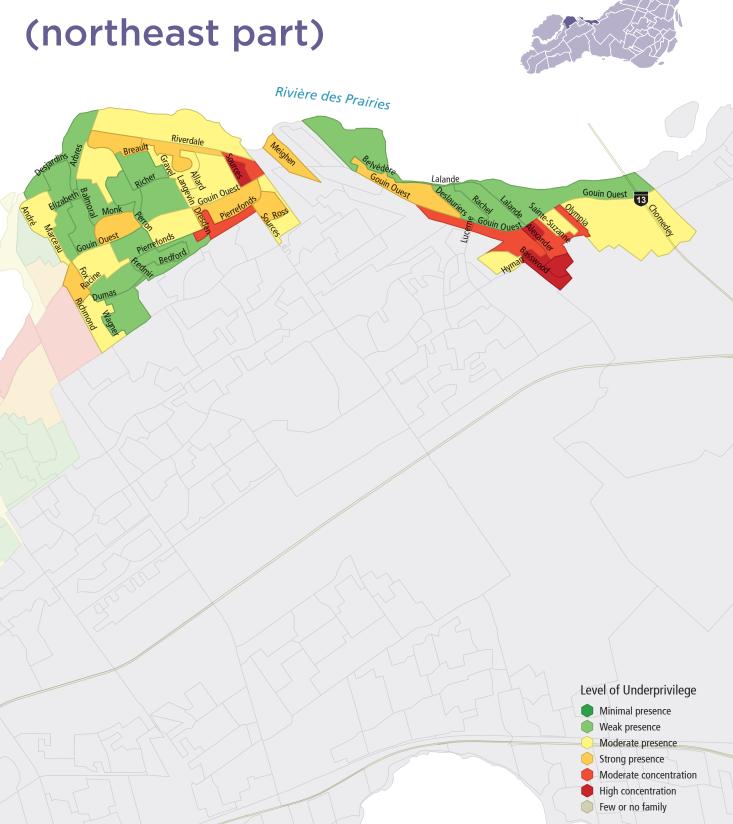




- Minimal presence
- Weak presence
- Moderate presence
- Strong presence
- Moderate concentration
- High concentration
- Few or no family



### **Pierrefonds**



### Plateau Mont-Royal





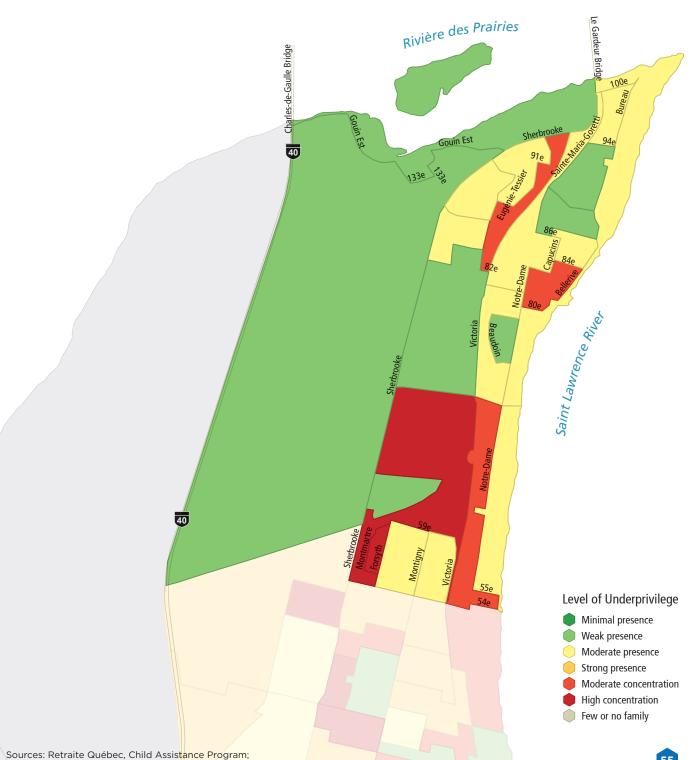


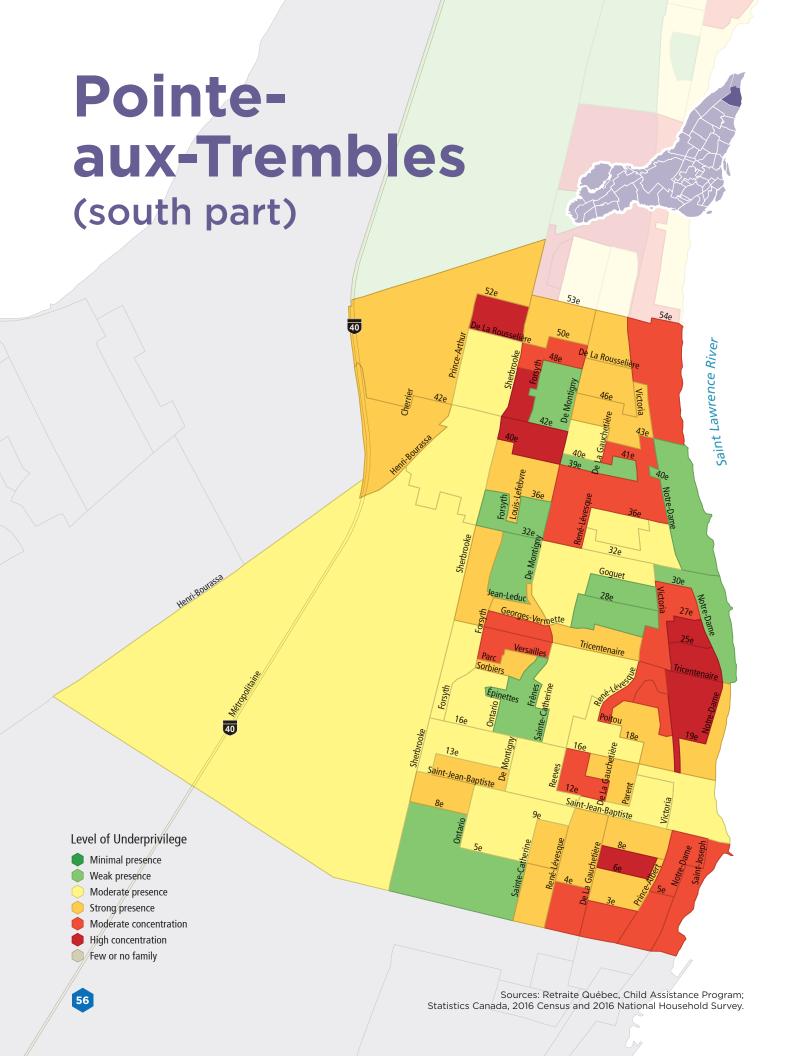
### Pointeaux-Trembles

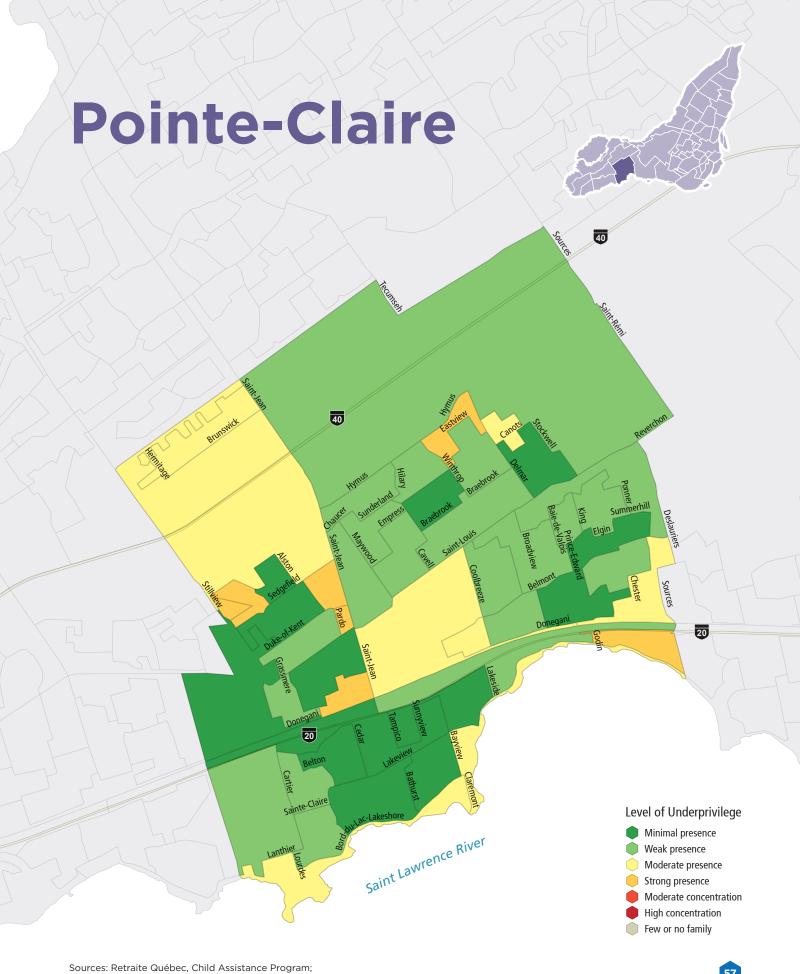
(north part)

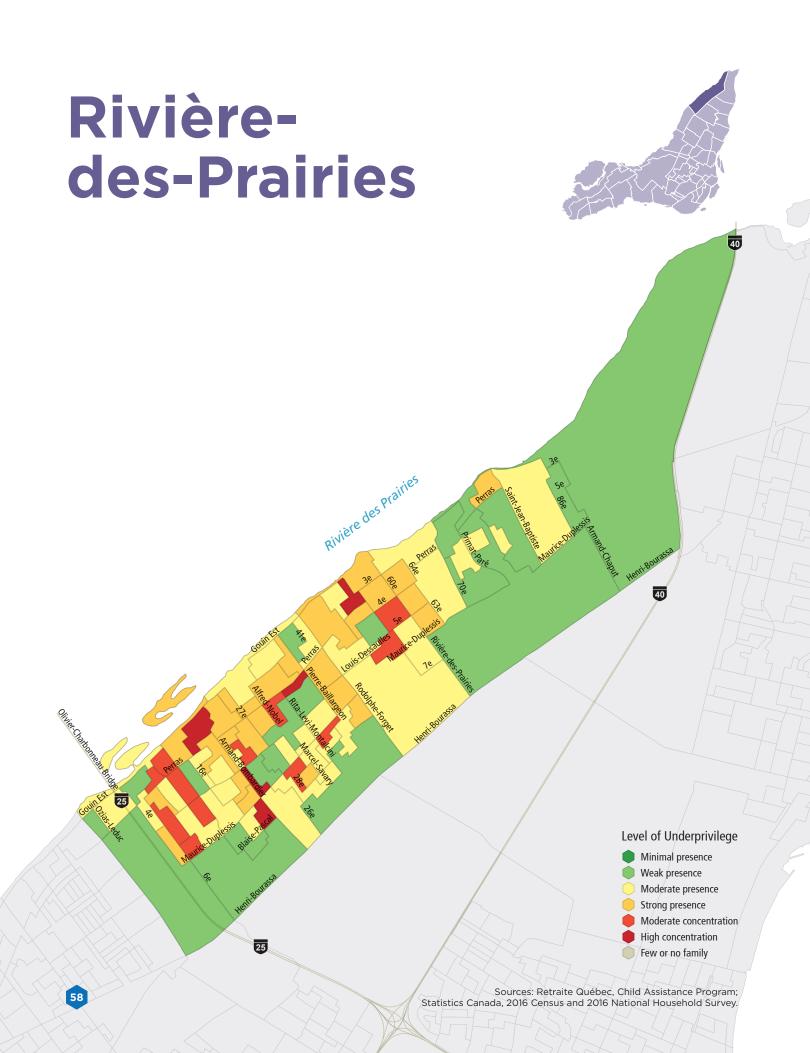
Statistics Canada, 2016 Census and 2016 National Household Survey.

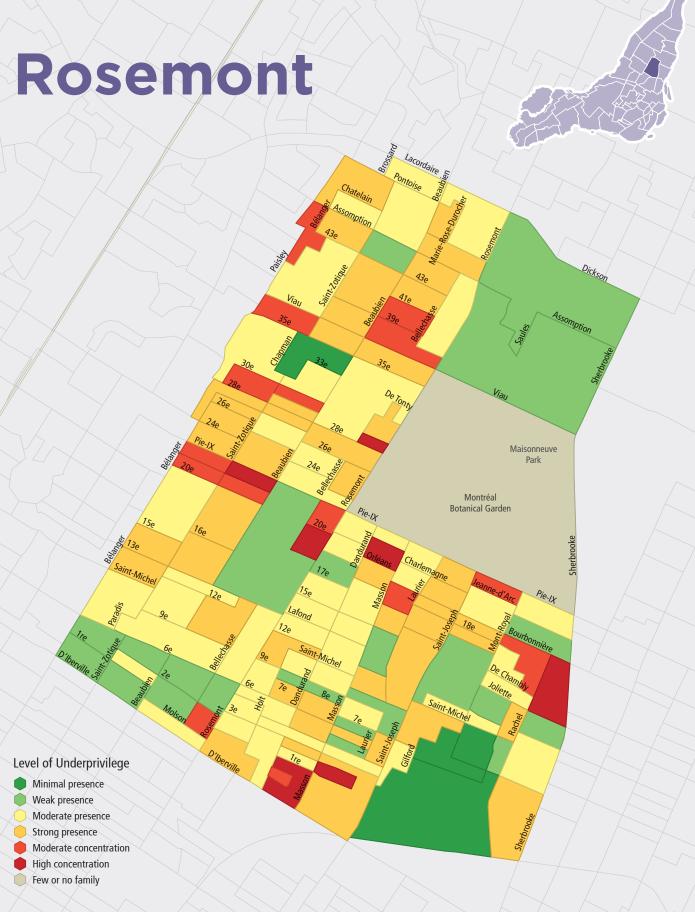


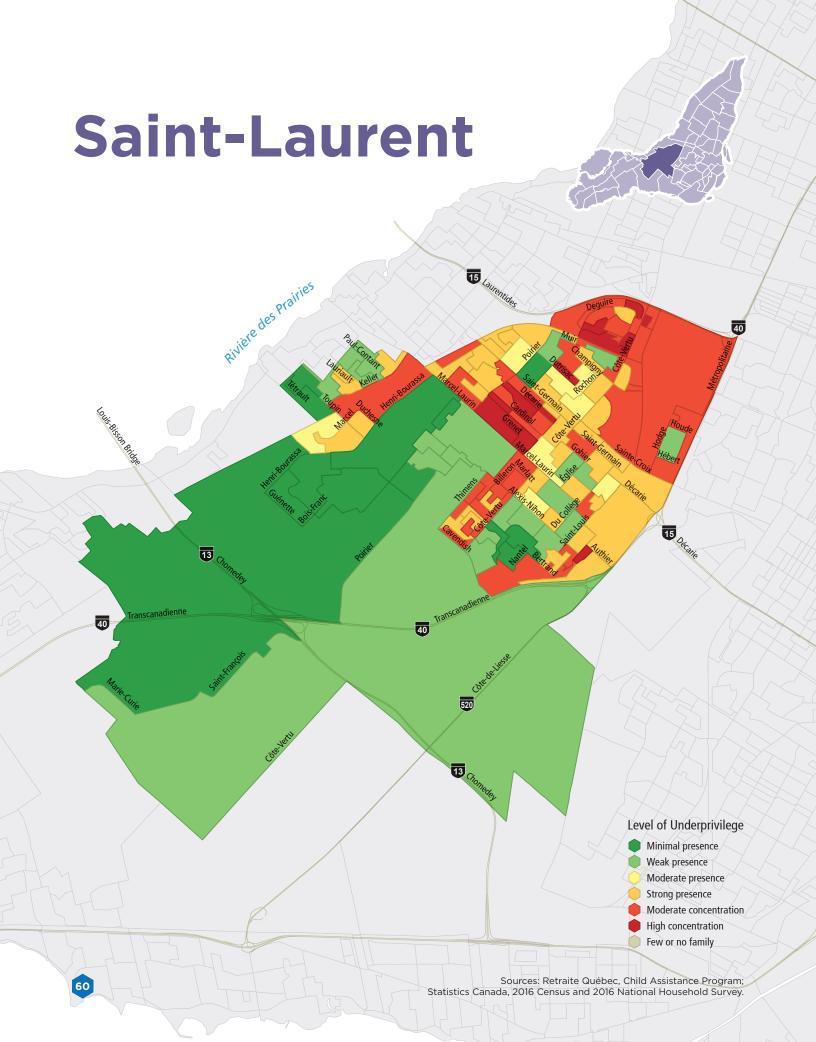


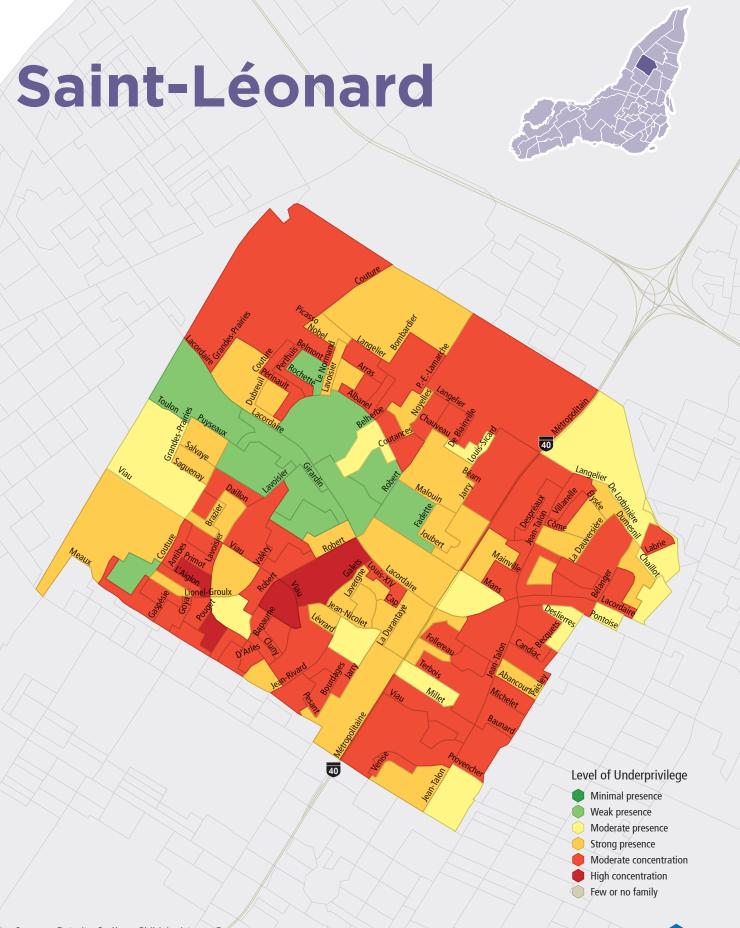


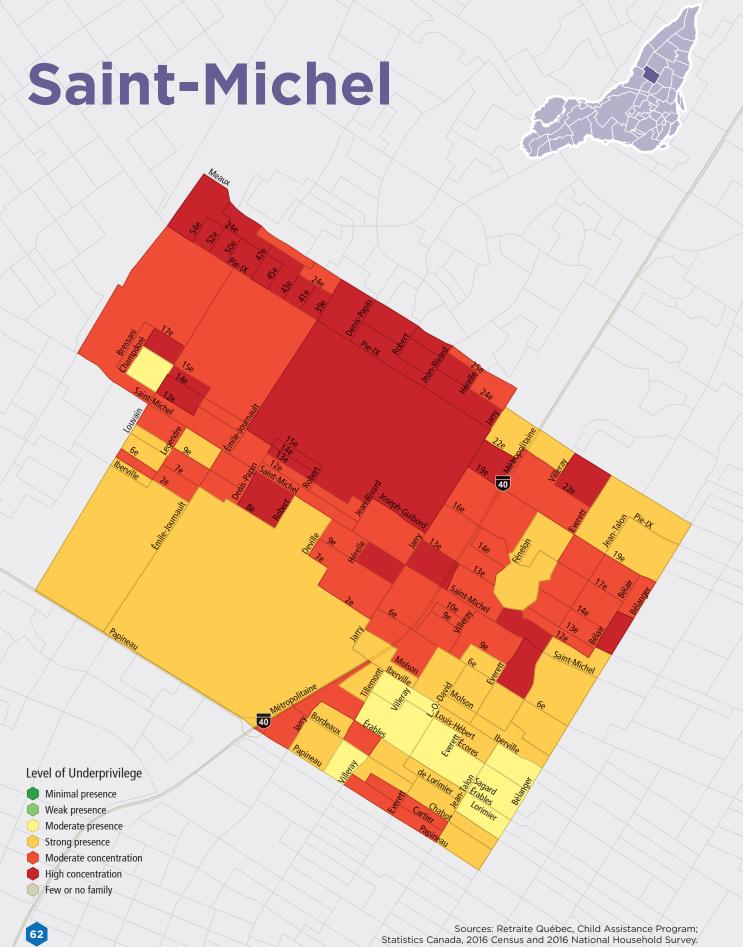


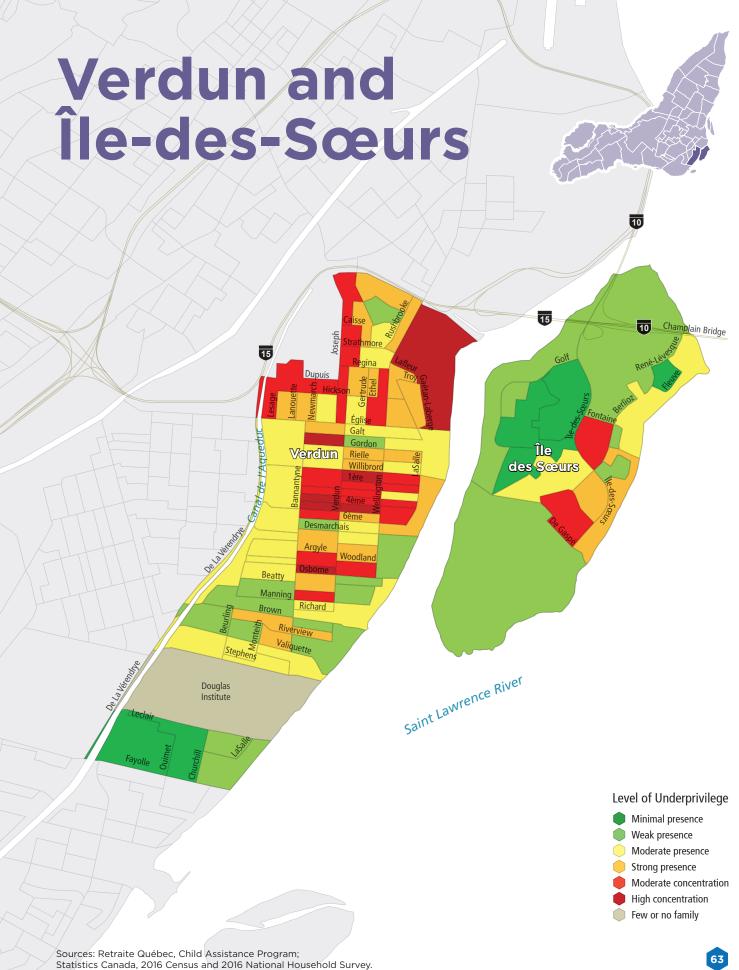


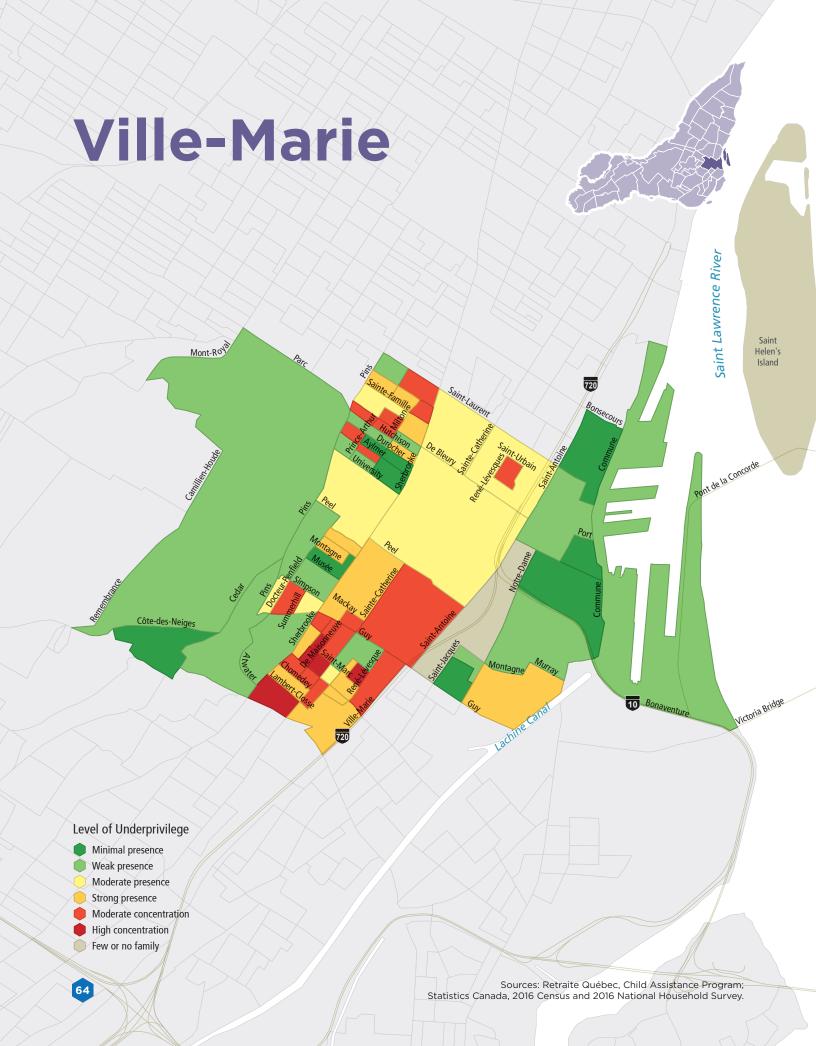


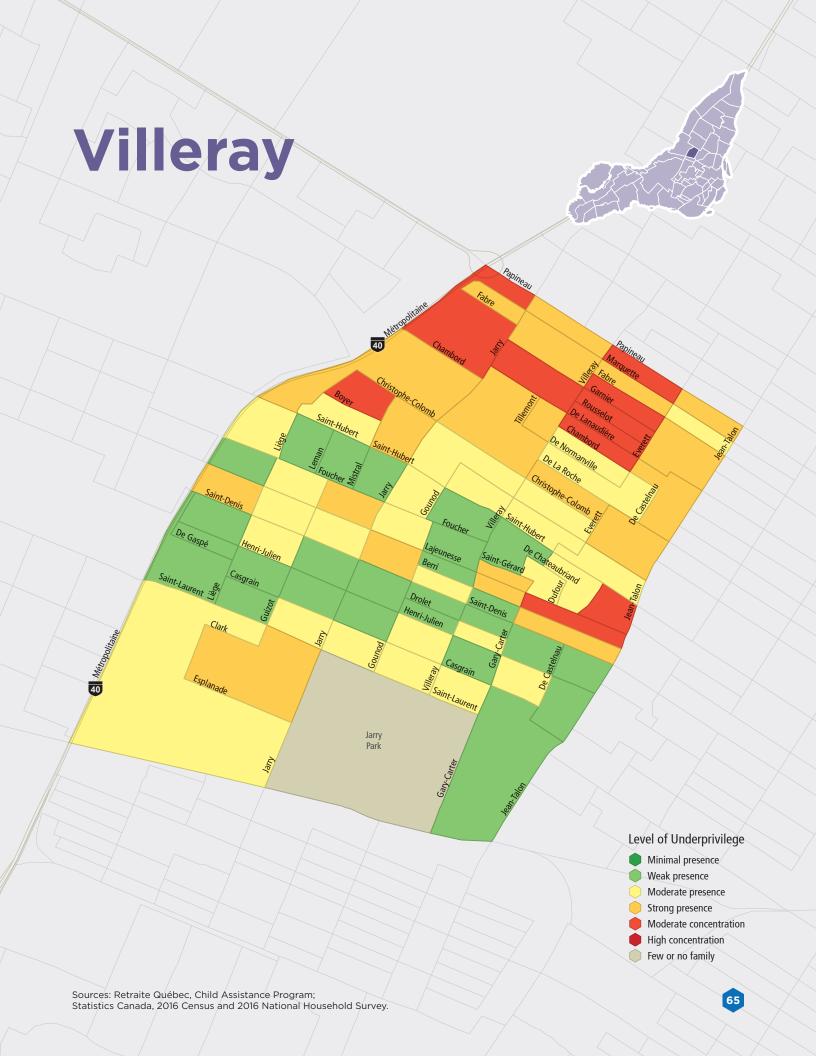


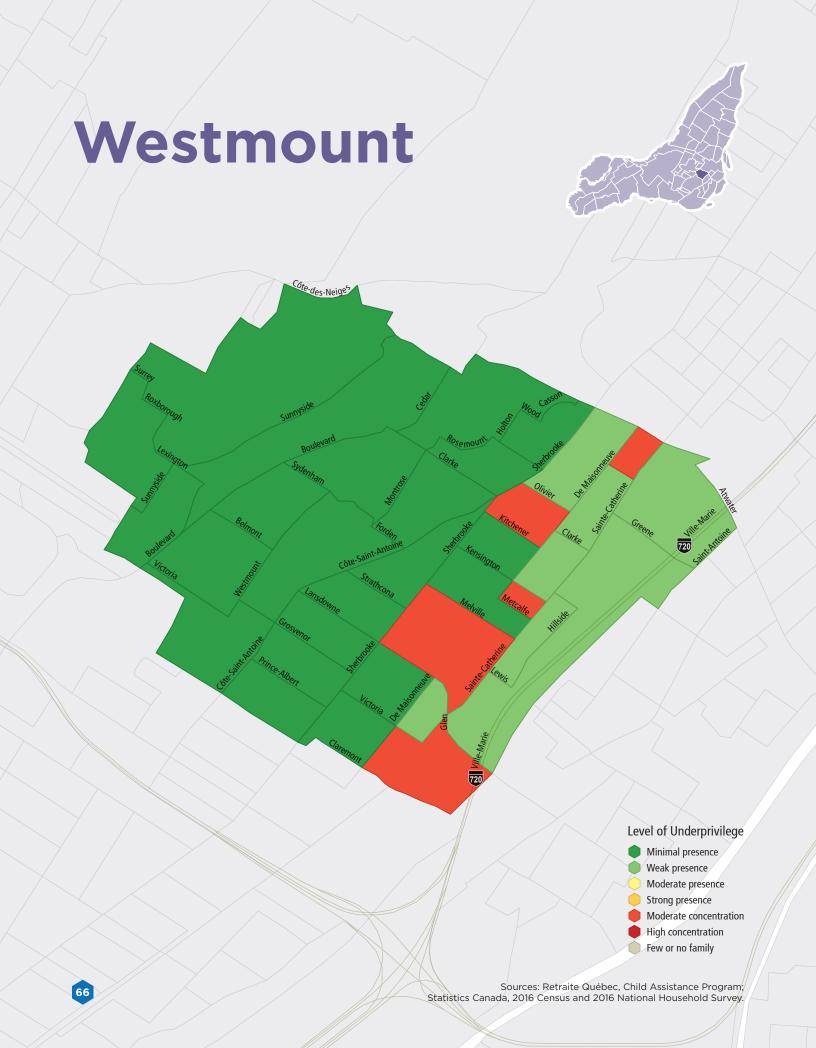


















**Chapter 3** 

#### Methodology

The vast majority of zones are not closed, but fragmented, spaces. This configuration method reflects the growing social mix observed in many neighbourhoods on the Island of Montréal.

The methods and techniques used to produce this map were derived from a population-based approach, not from an individual approach. The values were calculated for family groups constituted on the basis of their geographic proximity and considering certain socio-economic characteristics.

The two major components of the poverty map are the base map and the overall underprivilege index. These two components have been updated in accordance with the evolution of the geo-social characteristics of various parts of the Island of Montréal and the Vaudreuil-Soulanges RCM.

This chapter is devoted to the methods and techniques used to update the poverty map of the Comité de gestion de la taxe scolaire de l'île de Montréal.

#### 3.1 Configuration of the Base Map

The base map shows the division of the Island of Montréal and the Vaudreuil-Soulanges RCM into zones. This division aims to spotlight the geographic disparities in terms of socio-economic underprivilege. As a result, the zones must be as homogenous as possible.

Dissemination areas are the smallest geographic units for which Statistics Canada publishes data useful for updating the poverty map. In principle, the smaller the territory, the more likely that it will be homogenous. However, socioeconomic homogeneity is not a criterion used by Statistics Canada when setting boundaries.

In addition, the number of families with children under the age of 18 per dissemination area is generally too small to generate reliable statistics. In fact, census data and data from the National Household Survey come from a sample of households, and the data provided by Statistics Canada are rounded to a multiple of five. It was therefore necessary to combine dissemination areas so that the number of families per geographic unit would be sufficiently high to ensure greater statistical reliability.

The base map was created by combining dissemination areas presenting similar socio-economic characteristics. The statistics used were taken from the Retraite Québec, under the Child Assistance Program. Two variables were used to characterize the dissemination areas in terms of the socio-economic status of families with children under the age of 18:

- the median net annual income of eligible families under the Child Assistance Program;
- the percentage of families receiving the maximum amount under the Child Assistance Program.

These two variables were combined on an equal share in order to end up with a unique measuring unit; i.e., "family income". The new variable thereby created is also used in the calculation of the overall underprivilege index.

For the Island of Montréal, the following criteria were used to combine the dissemination areas into zones:

- the areas had to be in the same socio-economic category;
- the areas had to be located in the same sector (neighbourhood, municipality);
- the total number of families in each zone had to be about 450.

This configuration method made it possible to combine dissemination areas that were not adjacent. The vast majority of zones are thus not closed, but fragmented, spaces. This configuration method reflects the growing social mix observed in many neighbourhoods on the Island of Montréal. One effect of this social mix is that it was difficult to find a sufficiently large number of adjacent dissemination areas with the same socio-economic profile.

Moreover, it turns out that the neighbourhood is a sufficiently homogenous territory to serve as a geographic boundary for groupings of dissemination areas that are not adjacent. A one-way analysis of variance reveals that the average values per zone vary significantly from neighbourhood to neighbourhood in terms of both socioeconomic variables and those linked to academic success.

As regards the zones that divide the Vaudreuil-Soulanges RCM, their geographic boundaries match those of municipalities and one zone may include an entire municipality when dealing with a rural municipality with few inhabitants.

#### Results of the Configuration of the Base Map

In some cases, the number of families per zone was either much higher or much lower than the 450 prescribed because it was necessary both to avoid combining dissemination areas with different levels of underprivilege and to avoid creating too many zones.

**Table 8 -** Distribution of Zones According to the Number of Families Listed in 2016

Number of Families	Zones		
Number of Families	Number	%	
Less than 200	13	2.7	
200-349	42	8.6	
350-549	365	74.1	
550 or more	66	13.6	
Total	486	100.0	

Average number of families per zone: 459

# 3.2 Choice and Weighting of Variables Used to Calculate the Overall Underprivilege Index

The variables selected are similar in nature to those which have been used for the previous map, and weighting under the index is identical. The variables that have to do with revenue, schooling, and activity on the labour market are collected from the Canadian Census.

The specifications of the "family income" variable are delivered by Retraite Québec who holds accurate data on a small scale with respect to the income of families with children under the age of 18. Moreover, these data were not taken from a sample and are updated annually.

The "family income" variable combines two indicators on an equal share: the median net annual income and the percentage of families receiving the maximum amount under the Child Assistance Program.

The specifications of the "mother's education" variable combines, on an equal share, the percentage of families with a mother without a high school diploma and the percentage of families with a mother without a post-secondary diploma. A series of analyses have shown that it was beneficial to combine two categories from the variable entitled "highest education level achieved by the mother" in

order to compensate for the lack of variation in the values used given the relative scarcity of mothers who are non-graduates.

Table 9 provides a list of variables used in the overall underprivilege index. The "family income" and "mother's education" variables are not expressed in percentage; they are summary measures, as are indexes.

Table 9 - List of Variables and Indicators Selected

Variables	Indicators			
Family income	Combination, on an equal share, of the:			
	median net annual family income			
	% of families receiving the maximum amount under the Child Assistance Program			
<b>Mother's education</b>	Combination, on an equal share, of the:			
	% of families with a mother without a high school diploma			
	% of families with a mother without a post-secondary diploma			
Female lone-parent	% of single-parent families headed by a female			
Parents' activity	% of families where neither parent works full time			

A series of analyses have shown that it was beneficial to combine two categories from the variable entitled "highest education level achieved by the mother" in order to compensate for the lack of variation in the values used given the relative scarcity of mothers who are non-graduates.

#### **Weighting the Variables**

Once the variables had been selected, it was then necessary to decide how to combine them into a single measure: the overall underprivilege index. They could be given equal weight, attributing to zones the arithmetic means of the values for the four variables. Or they could be given different weights, with the index corresponding to the weighted average of the values for the four variables.

For comparison purposes, the method of weighting selected was the same as the one used for calculating the overall underprivilege index of the 2013 map.

**Table 10 -** Weight Given to the Variables in the Overall Underprivilege Index

Variables	Weight	
Family income	50.00%	
Mother's education	16.67%	
Female lone-parent	16.67%	
Parents' activity	16.67%	







#### Conclusion

Economic and social underprivilege is the principal consequence and is the determinant of slow academic progress, learning difficulties, late graduation, and drop-out rates. Few strategies can be implemented to fight against underprivilege auto-generation, apart from education and qualification.

The poverty map of the Comité de gestion de la taxe scolaire de l'île de Montréal is a tool adapted to Montréal's reality, designed to measure the extent of social and economic inequality within its borders. Using the poverty map to distinguish between wealth and poverty, we are able to allocate school taxes and investment income as fairly as possible among schools serving the children at greatest academic risk. Equal opportunity must be promoted through the targeted distribution of resources to counter the greatest risk factors.

The 2018 poverty map is thus an instrument of social justice allowing us to inform and support schools in their efforts to promote equal opportunity among the most disadvantaged children.

#### References

- 1 CÔTÉ, Albert et al. *La défavorisation dans les écoles primaires*. Conseil scolaire de l'île de Montréal. 1996.
- 2 Brief of the Conseil scolaire de l'île de Montréal as part of the National Strategy to Combat Poverty and Social Exclusion, 2002.
- **3** ST-JACQUES, Marcel and Dominique SÉVIGNY. Socioeconomic poverty among families with children in Montréal, Guide to the poverty map of the Comité de gestion de la taxe scolaire de l'île de Montréal. Comité de gestion de la taxe scolaire de l'île de Montréal. December 2003.
- 4 MOREAU, Lisette. *La pauvreté et le décrochage scolaire* ou la spirale de l'exclusion. Ministère de l'éducation du Québec, Direction de la recherche, de l'évaluation et de la statistique. November 1995.
- **5** AUDAS, Richard and J. Douglas WILLMS. *Engagement and dropping out of school: a life-course perspective*. Human Resources and Social Development Canada, Applied Research Branch, Strategic Policy. February 2001.
- 6 Statistics Canada. *Low-income cut-offs for 2005 and Low-income measures for 2004*. Statistics Canada, Income Statistics Division, Catalogue No. 75F0002MIF, Vol. 4. April 2006.
- 7 Statistics Canada. 2011 Census Dictionary. Online version. Catalogue No.98301X2011001.
- **8** BROOKS-GUNN, Jeanne et al. "Do Neighborhoods Influence Child and Adolescent Development," *The American Journal of Sociology*, Vol. 99, No. 2 (September 1993), 353395.
- **9** PEBLEY, Anne R. and Narayan Sastry. *Neighborhoods, Poverty and Children's Well-being: A Review*. RAND. DRU-3001-NICHD. February 2003.
- 10 JANUS, Magdalena et al. Community, Neighborhood and 5-year-olds' Readiness to Learn at School. Canadian Centre for Studies of Children at Risk, McMaster University. Head Start Conference, Washington, 2002.
- 11 CRESPO, Stéphane. L'inégalité des revenus au Québec 1979-2004. Les contributions de composantes du revenu selon le cycle économique. Institut de la statistique du Québec. September 2007.
- **12** MURPHY, Brian, Paul ROBERTS and Michael WOLFSON. *High income Canadians*. Perspective. Statistics Canada. Catalogue No. 75-001-XIF. September 2007.
- MORISSETTE, René, Xuelin ZHANG and Marie DROLET. The evolution of wealth inequality in Canada, 1984-1999. Statistics Canada, Business and Labour Market Analysis Division. February 2002. http://www.statcan.ca/francais/research/ 11F0019MIF/11F0019MIF2002187.pdf

- 14 LAPOINTE, Pierre, Jean ARCHAMBAULT and Roch CHOUINARD. L'environnement éducatif dans les écoles publiques et la diplomation des élèves de l'île de Montréal. Comité de gestion de la taxe scolaire de l'île de Montréal. October 2008.
- 15 VITARO, Frank. Liens entre la petite enfance, la réussite scolaire et la diplomation au secondaire. Centre of excellence for early childhood development. Encyclopedia on early childhood development Graduation. Online publication, April 15, 2003; revised October 13, 2005. http://www.enfantencyclopedie.com/Pages/PDF/VitaroFRxp\_rev.pdf
- 16 JEAN, Sylvie. "Qui a profité de l'augmentation de la richesse entre 1999 et 2005 au Québec?" Institut de la statistique du Québec. Données sociodémographiques en bref, Vol. 13, No. 1, (Oct. 2008).
- 17 DESROSIERS, Hélène and Amélie DUCHARME. "Facteurs associés à l'acquisition du vocabulaire à la fin de la maternelle." Institut de la statistique du Québec. Commencer l'école du bon pied, Vol. 4, Fascicule 1, October 2006.
- 18 DESROSIERS, Hélène and Karine TÉTREAULT. "Caractéristiques démographiques, socioéconomiques et résidentielles des enfants vulnérables à l'entrée à l'école." Institut de la statistique du Québec. Portraits et trajectoires, No. 14, May 2012.
- 19 JAPEL, Christa. "Risques, vulnérabilité et adaptation Les Enfants à risque au Québec." Institut de recherche en politique publique (IRPP). Choix IRPP, Vol. 14, No. 8, July 2008.
- **20** OLTMANS, ANANAT, Elizabeth. How Job Losses Affect Youngsters and Their Schools. Scholars Strategy Network – Key Findings. May 2012.
- 21 CRESPO, Stéphane. Entrer en situation de faible revenu et en sortir : les influences d'événements relatifs au travail et à la famille. Institut de la statistique du Québec, Données sociodémographiques en bref. Vol. 14, No. 1. October 2009.
- **22** KALIL, Ariel. *Joblessness, family relations and children's development*. Australian Institute of Family Studies. Family Matters 2009, No. 83.
- 23 KALIL, Ariel. *Unemployment and job displacement: the impact on families and children*. The Workplace, July/August 2005.
- **24** BOUCHARD, Isabelle. Les milieux à risque d'abandon scolaire Quand pauvreté, conditions de vie et décrochage scolaire vont de pair. CRÉPAS. October 2001.
- 25 MAGDOL, Lynn. *Risk Factors for Adolescent Academic Achievement*. University of Wisconsin-Madison/Extension. Wisconsin Youth Futures, Technical Report # 3, 1991.
- **26** DURU-BELLAT, Marie. *Inégalités sociales à l'école et politiques éducatives*. Unesco, Institut international de planification de l'éducation. Paris 2003.

- ARCHAMBAULT, Paul. Séparation et divorce : quelles conséquences sur la réussite scolaire des enfants ? Population et sociétés, No. 379, May 2002.
- DOHERTY, Gillian. *De la conception à six ans : les fondements de la préparation à l'école*. Human Resources and Social Development Canada, Applied Research Branch, Strategic Policy. May 1997.
- THOMAS, Eleanor. Les enfants de cinq ans sont-ils disposés à apprendre à l'école? Les contextes du revenu et du milieu familial. Statistics Canada, Special Surveys Division. November 2006.
- BRUNIAUX, Christine and Bénédicte GALTIER. *Quel avenir pour les enfants de familles défavorisées?* L'apport des travaux américains. Recherches et Prévisions, No. 79 March 2005.
- Statistics Canada. *Education reference guide, 2006 Census.* Statistics Canada, Catalogue No. 97-560-GWF2006003, May 10, 2013.
- DUVAL, Stéphanie and Caroline BOUCHARD. Soutenir la préparation à l'école et à la vie des enfants issus de milieux défavorisés et des enfants en difficulté. Ministery of the Family, 2013.





