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CHAIRE-RÉSEAU DE RECHERCHE  
SUR LA JEUNESSE DU QUÉBEC

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## Costs of undereducation of youth in care

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This analysis aims to estimate part of the gains that can be realized by increasing the graduation rate of youth who leave out-of-home-care in the youth protection system after age 16. The analysis concentrates on gains in personal income after income taxes, consumption tax revenue, income tax revenue, and savings in transfers (social assistance, unemployment insurance, etc.).

Currently, youth in care lag far behind the rest of the population in terms of secondary school graduation. At age 19, only 24.8% of youth who leave care earn a secondary school diploma (SSD), compared with 77.4% for all of Québec. If 2,000<sup>1</sup> young people leave out-of-home care each year after age 16, this implies that 1,044 youth will not earn their diplomas. Over the working life of these youths, the shortfall in sales taxes, income taxes, personal income, and savings in social services due to this undereducation exceeds \$370 million (see Table 4). There is thus huge economic potential that remains unrealized due to the undereducation of youth in care

<b>All of Québec:</b>	81.8 %
Diploma holders	77.4%
Qualification holders	4.4 %
<b>Delayed start of high school</b>	55.1 %
<b>1st generation Immigrants</b>	78.3%
<b>Public system:</b>	78.6 %
EHDAA (special needs)	56.2 %
Disadvantaged	73.2 %
<b>Private system</b>	92.9 %
<b>EDJeP<sup>3</sup></b>	24.8%
Source: Ministère de l'Éducation et de l'Enseignement supérieur, EDJeP data	

The tables below present the gains achieved for youth who obtain a high school diploma. Table 2 shows that after graduating from secondary school, a youth's income increases by about \$4,700. In addition, the youth pays \$1,800 more in income taxes and about \$670 more in GST and QST. Improved education is also linked to a \$4,400 decrease in government transfers received.

<sup>1</sup> Goyette, M., Solis, A., Esposito, T. and Hélie, S. (2016). Rapport de contextualisation: constitution de la cohorte EDJeP. Montréal, Québec: Canada Research Chair in Evaluating Public Actions Related to Young People and Vulnerable Populations, ÉNAP; Goyette, M., Esposito, T, Girault, C. (2016). La trajectoire de placement des jeunes sortants assujettis à la loi de protection de la jeunesse Montréal, Québec: Canada Research Chair in Evaluating Public Actions Related to Young People and Vulnerable Populations, ÉNAP.

<sup>2</sup> Graduation rates after seven years; starting age of high school is 12.

<sup>3</sup> Weighted percentage measured in second wave of EDJeP when youth were age 19. EDJeP surveyed youth in all care settings.

**Table 2: Benefits linked to earning an SSD over one year**  
Confidence intervals at 95%

Measure	Amount	Lower CI	Upper CI
Gains in income after taxes	4,706.37	3,073.80	6,338.93
Provincial income tax	1,005.80	575.47	1,436.14
Federal income tax	803.77	434.16	1,173.38
Reduced transfers	4,413.97	3,934.78	4,893.15
GST revenue	224.08	121.13	353.82
QST revenue	447.04	241.66	705.87
<b>Total</b>	<b>11,601.04</b>	<b>8,381</b>	<b>14,901.30</b>

Table 3 shows the gains over a youth's working life, from ages 19 to 65. A discount rate of 2% is used. The figures show that over his/her working life, a youth who gets an SSD generates \$350,000 more in salaries, sales taxes, income taxes and transfers in savings than a youth without an SSD.

**Table 3: Benefits linked to earning an SSD over a youth's working life**  
Discount rate of 2%, confidence intervals at 95%

Measure	Amount	Lower CI	Upper CI
Gains in income after taxes	143,497.90	93,720.60	193,275.10
Provincial income tax	30,667.10	17,546.12	43,788.07
Federal income tax	24,507.15	13,237.66	35,776.64
Reduced transfers	134,582.60	119,972.20	149,193.00
GST revenue	6,832.31	3,693.35	10,788.06
QST revenue	13,630.45	7,368.24	21,522.17
<b>Total</b>	<b>353,717.50</b>	<b>255,538.10</b>	<b>454,343.10</b>

These figures paint a picture of the potential benefits if the graduation rate of youth in care increases. For a cohort of 2,000 young people, here are the results of two scenarios where the graduation rate of youth in care catches up to that of Québec as a whole or that of EHDAA (special needs).

**Table 4: Potential benefits by graduation rate**

	Québec Overall	Special needs
Graduation rate	77.4%	56.2%
Difference from EDJeP	52.2%	31%
Potential gain in number of graduates	1052	628
Monetary gains during the first year	\$12,204,294	\$7,285,453
Gains over working life	\$372,110,778	\$222,134,571
CI at 95%	\$268,826,134 - \$477,968,931	\$160,477,958 - \$285,327,461

If the graduation rate of youth in care would reach that of Québec overall, society would derive gains of \$372,110,778 in present value. If the rates would match those of special needs students, the gains would reach \$222,134,571 in present value. Given that this analysis excludes savings in health and justice, these estimates are conservative.

## Technical annex

### Models based on the 2016 Canadian Income Survey

	Income after taxes	Dependent variables		
		Provincial income tax	Federal income tax	Transfers
	(1)	(2)	(3)	(4)
Constant	21 932.13*** (615.10)	1 379.33*** (162.14)	1 070.13*** (139.26)	10 447.95*** (180.54)
SSD	4 706.37*** (832.85)	1 005.80*** (219.53)	803.77*** (188.56)	-4 413.97*** (244.45)
CEGEP	11 483.06*** (766.54)	2 070.76*** (202.06)	1 620.01*** (173.54)	-4 884.44*** (224.99)
University	27 934.63*** (813.55)	5 605.50*** (214.45)	4 675.99*** (184.19)	-5 100.73*** (238.79)
Observations	9 183	9 183	9 183	9 183
R <sup>2</sup>	0.14	0.08	0.08	0.06
Adjusted R <sup>2</sup>	0.14	0.08	0.08	0.06
Residual type error (df = 9179)	689 245.90	181 681.00	156 044.10	202 304.90
F Statistic (df = 3; 9179)	482.02***	278.60***	266.03***	196.36***

Note:

\* p \*\* p\*\*\* p<0,01

### Benefits linked to earning an SSD over working life, discount rate of 5%

Measure	Amount	Lower CI	Upper CI
Income gains after taxes	88,357.65	57,707.70	119,007.60
Provincial income tax	18,883.02	10,803.88	26,962.15
Federal income tax	15,090.08	8,150.99	22,029.17
Reduction in transfers	82,868.15	73,871.89	91,864.41
GST revenue	4,206.94	2,274.15	6,642.66
QST revenue	8,392.84	4,536.93	13,252.10
<b>Total</b>	<b>217,798.70</b>	<b>157,345.50</b>	<b>279,758.10</b>

<b>Marginal propensity to consume</b>	
	Consumption expenses
Constant	23,644.2600*** (3,199.7430)
Total income	0.9523*** (0.0834)
Observations	281
R <sup>2</sup>	0.3187
Adjusted R <sup>2</sup>	0.3162
Residual type error	1,373,515.0000 (df = 279)
F statistic	130.5008*** (df = 1; 279)
Note:	* p** p*** p<0.01

## EDJeP: a brief introduction

The Study on the Future of Placed Youth (EDJeP) was developed by the Canada Research Chair in Evaluating Public Actions Related to Young People and Vulnerable Populations (CREVAJ) and its partners in order to fill a knowledge gap regarding how youth in care prepare for independent living. It also explores the post-care period, which has received very little attention in Québec. In a context where all Western societies are prolonging youth and deferring the transition to adulthood, EDJeP is interested in the living conditions and the track to independence of youth ages 17 to 21 who were in placed in out-of-home care. These youth face a paradoxical imperative of autonomy when they reach adulthood. EDJeP is the first representative large-scale Québec study on this theme.

### A three-phase longitudinal study

Of a target population of 2,573 Québec youth, a representative sample of 1,136 young people in out-of-home care was met in the first wave of interviews (response rate of 67.3% from among the 1,600 youth whose contact information we obtained). The interviews were based on a detailed survey that covers the young people's situations and experiences in various areas of life. These youth, who were 17 years old at the time of the first wave, were met again in 2019 (more than 800 youth have been interviewed to date), and will be met again in 2020 to monitor their progress toward autonomy.

### A broad range of data sources

The data from these questionnaires will also be combined with data obtained in the youth integration project (PIJ) involving 2,573 respondents, including those who participated in EDJeP, who met the eligibility criteria for the study. The administrative files of youth in the youth protection program (PIJ) were consulted in order to collect specific information about the service and care trajectories. We also obtained authorization from the Commission d'accès à l'information (CAI) to access administrative data that would let us track the trajectory of use of the services of the MESRS (education), MTESSS (last resort assistance), the RAMQ (social services and health), along with other population data to better understand the transition issues that youth in care face, and to improve practices and policies. The cross-referencing of these dimensions is intended to enhance and adapt the services offered to youth who leave care, together with the associated social policies.

### A national and international comparison

In addition to the longitudinal approach, EDJeP was designed to allow comparative analyses with two other important studies. First, a comparison with the Québec Longitudinal Study of Child Development (QLSCD) let us analyze the trajectories of young Quebecers within the general population and compare them with those of youth who leave care. These comparisons should provide insight into the challenges that youth face when they age out of care. In addition, major collaboration with the team leading the Étude longitudinale sur l'autonomisation des jeunes après un placement (ELAP) in France will allow an international comparison that will extend the knowledge gained from the study considerably.

### Cooperation with youth

EDJeP is conducted in close cooperation with the members of the EDJeP youth committee. The committee is made up of 12 young people ages 18 to 35 who have all been in care and who wish to contribute to the EDJeP project in order to improve the services offered to youth who are leaving youth centres and beginning their path to autonomy. The youth committee advises the researchers and various committees and partners involved in the research. It aims to ensure that the participation of youth is significant and that their rights are considered in each phase of the EDJeP research, from project planning to execution.

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<sup>4</sup> For each data source, an equivalent random sample of young people who are not participating in EDJeP will be formed to identify the resemblances and differences in the service trajectories between EDJeP youth and those in the general population.