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Assessing the Impact of the 2012 National Student Loan Forgiveness on Rural Health Human Resources

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Abstract

On 1 January 2013, the federal Canada Student Financial Assistance Program (then known as the Canadian Student Loan Program) granted loan forgiveness to family physicians or nurses working at least 400 hours a year in a "rural" area of Canada. This is a return-for-service (RFS) program forgiving a maximum amount of the loan for each year worked in a designated area, up to a maximum of five years. The goal of the policy was to attract more family physicians and nurses to underserved areas and address the inequality in health between rural and urban areas in the country. The policy was accepted on principle but raised issues of non-compatibility between the federal and provincial RFS to attract health care workers to underserved areas, in particular its blanket definition of those areas as "rural," whereas provincial programs use criteria based on the density of physicians or nurses per population.

Le 1er janvier 2013, le Programme canadien d'aide financière aux étudiants (connu à l'époque sous le nom de Programme canadien de prêts étudiants), a accordé une exonération aux médecins de famille et personnels infirmiers travaillant au moins 400 heures par an dans une région « rurale » du Canada. Il s'agit d'une d'obligation de retour de service (RDS) exonérant d'un montant maximum du prêt pour chaque année travaillée dans une région désignée, pour un maximum de cinq ans. L'objectif de cette politique était d'attirer davantage de médecins de famille et de personnels infirmiers dans les régions mal desservies et de remédier à l'inégalité de santé entre les zones rurales et urbaines du pays. La politique a été acceptée sur le principe, mais a soulevé des questions d'incompatibilité entre les RDS provinciaux et fédéraux visant à attirer des personnels infirmiers dans les zones mal desservies, en particulier sa définition générale des zones comme « rurales », alors que les programmes provinciaux utilisent des critères basés sur la densité de médecins ou de personnels infirmiers par rapport à la population.

Key Messages

- The number of family physicians or nurses claiming loan forgiveness for working in rural areas was lower than anticipated.
- There is no evidence that the loan forgiveness program attracted health care workers to work in rural areas who did not already plan do so.
- Many areas deemed "rural" by the program did not need more physicians or nurses, especially in the Prairies, and this federal return-to-service program may have jeopardized similar provincial efforts.
- Overall, there was little coordination between federal and provincial programs, and the federal program may have worked at cross-purposes with provincial recruitment and retention programs.

Messages-clés

- *Le nombre de médecins de famille ou d'infirmières demandant une remise de prêt pour travailler dans les zones rurales a été plus faible que prévu.*
- *Il n'y a aucune évidence que le programme de remise de prêts a incité des professionnels de la santé à travailler dans des zones rurales s'ils n'en avaient pas déjà l'intention.*
- *De nombreuses zones considérées comme « rurales » par le programme n'avaient pas besoin de plus de médecins ou d'infirmières, en particulier dans les prairies, et ce programme fédéral de retour au service peut avoir compromis des efforts similaires des provinces.*
- *Au total, il n'y a pas eu beaucoup de coordination entre les programmes féderal et provinciaux, et le programme fédéral a pu œuvrer à contre courant des programmes provinciaux de recrutement et de rétention.*

1 BRIEF DESCRIPTION OF THE POLICY

The Canada Student Financial Assistance Program (CSFAP) is a federally funded program launched in 1964 and administered jointly by Employment and Social Development Canada ([ESDC], known as Human Resources and Social Development [HRSD] at the time of the reform) and the provinces.[1] Its aim is to make post-secondary education more accessible through loans and grants. The grants vary by income and matrimonial status, but loans are the same for all (a maximum of $10,200 per year in 2024 (Government of Canada 2022)). The reform described here is a change in the regulations of the Canada Student Loans Program (CSLP) at the time, which introduced forgiveness for the loans family physicians, nurses, and nurse practitioners subscribed to for their medical studies in exchange for the provision of services in areas deemed "rural."

The explicit objective of the policy was to incite more family physicians, medical residents in family medicine residency programs, and nurses (registered, licensed practical, registered practical, registered psychiatric, and nurse practitioners) to work at least 400 hours per year in an area deemed "rural" to address a perceived lack of "access to health care services" in these communities in comparison to "urban" ones (Government of Canada 2012). The ultimate goal was to address inequality in health across the rural-urban divide in Canada, following the idea that if access to primary care was made easier in rural areas, health status would improve.

The policy works as follows: each year, on or after 1 July 2011, if an eligible medical professional works at least 400 hours in a region deemed rural by the program, they can deduct $8,000 (as a family physician or resident in family medicine) or $4,000 (nurses) from the loan they owe the CSLP program, up to a maximum of five years (a maximum deduction of $40,000 for a physician and $20,000 for a nurse).[2] Because Québec is not part of the national student loan program, the forgiveness policy does not apply to professionals from that province, and Québec has received some funding as compensation.

The regulations on loan forgiveness came into force on 1 January 2013, applying partially to program participants who had begun working in an eligible community on or after 1 July 2011, and fully to those starting working 1 April 2012 (thus taking effect 1 April 2013).

[1] British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Ontario, and Saskatchewan work together with the federal government to provide integrated student grants and loans. Alberta, Nova Scotia and Prince Edward Island have their own student aid run in parallel with the federal program. Yukon does not have a territorial program. The Northwest Territory, Nunavut, and Québec opted out of the program and run their own territorial or provincial programs. For a history of the federal program, see Usher (2024).

[2] The amounts were increased to $60,000 and $30,000 in 2023, structured into a progressive plan over five years (from $8,000 to $16,000 per year for physicians and $4,000 to $8,000 for nurses). The difference between the amounts a nurse and a physician can see forgiven is striking, reflecting the difference in the cost of studies but also perhaps a difference in prestige and power across these two professions, which itself may reflect the gender difference of the past, when family physicians were mostly men and nurses mostly women (the latter being still the case today).

This policy is an attempt by the Canadian government to implement a form of return-for-service (RFS) mechanism at the federal level (the service being practicing in an area deemed underserved).[3] Such RFS are and were common at the time, all provinces and territories having some form of such a mechanism for physicians, usually as a bursary; only British Columbia had a loan forgiveness program at the time (Neufeld and Matthews 2012). Some of these RFS are meant to incentivize health care providers to stay in the province, but nevertheless, all provinces and territories had a RFS meant to change the distribution of health care providers within the province, toward areas deemed "underserved" (Neufeld and Matthews 2012). Interestingly, most provinces use a need-based definition of underserved areas, often based on a measure of physician density, whereas the federal program opens the forgiveness to health care providers practicing in any area deemed "rural" (see next section for a discussion on the definition of this term). It is very likely that such a blanket definition of eligible areas taken at the national level would make the program less efficient than existing programs in provinces and territories, an issue we revisit in the evaluation section.

2 HISTORY AND CONTEXT

2.1 Changes to the Canada Student Loans program

The change in regulations to the CSLP was a health-related reform, even though its main instrument was a higher-education policy (the announcement was made "by the Honourable Leona Aglukkaq, Minister of Health, on behalf of Diane Finley, Minister of Human Resources and Skills Development" (Government of Canada 2012). Federal governments are not supposed to interfere in health human resources policy or post-secondary education, which are provincial responsibilities. However, it is politically difficult for a provincial government or any institution (such as universities) to oppose a reform that would lessen the financial burden of education for aspiring health care workers willing to work in "underserved" communities at a time of perceived health care worker shortages and geographic inequities across jurisdictions. Lastly, this reform was coming right after a major reform of the Canada Health Transfer (announced in 2011), and was certainly seen as too small to really be worthy of any discussion by the provinces.

The policy was part of the Conservative government's Economic Action Plan (and of the platform of the Conservative Party for the federal election 2011), under the headline "Working for communities." The policy worked well with the projected image of a lean government transferring money back into the wallets of "hard-working Canadians," here, medical and

[3]RFS are often prospective, with the student receiving the transfer first and providing the service in return, but retrospective RFS exist as well, such as the one described here: the former student provides the service first and then benefits from the loan forgiveness, if and only if they contracted a public loan in the first place, of course. Neufeld and Matthews (2012) include student loan forgiveness programs in their review of RFS in Canada.

nursing students, and the Harper government's preference for fiscal expenditures (reducing the amount taxpayers owe the government) over social transfers (Lang 2013). A public student loan is not exactly a tax, but it is still money owed to the government and, in that sense, forgiving a public loan can be interpreted as some form of fiscal expenditure, not least because it is transactional: the former student needs to do something that benefits society to get the relief, thus it is not a traditional unconditional social program. It also played well in a context where student debt was perceived as ballooning, even though that was not the case (Usher 2014); but data on Canadian student debt is published with a four-year lag, and at the time, there was a real student debt crisis in the United States, which skewed the conversation in Canada. Lastly, the measure was not too costly to the government, with $9 million budgeted in the first year and $45 million in steady state.

2.2 Rationale for the changes

The policy cites three rationales: the health of Canadians living in rural areas is not as good as the health of urban Canadians, there are fewer physicians per population in rural areas, and financial incentives will motivate health care providers to work in rural areas.

2.2.1 Rural health

The first rationale can be supported to some extent by a 2006 report by the Canadian Institute for Health Information (CIHI) on the health of Canadians by rurality. The report divided areas where Canadians lived into zones based on the intensity of commuting to urban centres (areas with a population of at least 10,000) and found a three-and-a-half-year difference in life expectancy among men (but none among women) living in the most rural areas, defined as regions with no connections whatsoever to urban centres, compared to urban centres; cancer incidence and mortality were actually lower in rural areas, but mortality due to circulatory and respiratory diseases was higher. Controlling for socio-economic status, there were differences in mortality before the age of 44, as well as differences in mortality due to traffic and suicide between the ages of 45 and 64 (CIHI 2006), but no differences in mortality after age 65, when access to primary care matters most. The report also mentions that Canadians living in rural areas are more likely to be obese and to smoke, and recommended prevention and public health programs rather than access to primary care to address these inequities.

2.2.2 Number of physicians in rural areas

The second rationale is supported by another CIHI report published in 2005, showing that there were fewer family physicians per population in rural areas than in urban areas. Using the same definition of urban and rural areas, it calculated that, whereas 21% of Canadians lived in rural areas and small towns in 2004, only 16% of family physicians practiced in these areas (Pong and Pitlabo 2005). Note that in this report, a physician was assigned to

their "preferred mailing address," and the number of hours worked serving patients located in rural or remote areas by family physicians whose main practice is located in an urban area is not known – not only in that report, but more broadly across Canada.

2.2.3 Financial incentives for health care providers

The last rationale is explicitly (in the Gazette) based on a a study by Chauban et al. (2010) showing that financial incentives for physicians to practice in rural areas worked better on young compared to senior physicians. The loan forgiveness program was described in that piece as one of several actions enacted by various provinces and territories, such as relocation support and career development opportunities to attract more young physicians to rural areas. It must be noted that the study did not say that these incentives work, only that when they worked, they worked better on junior physicians. The Gazette also cited a report from the World Health Organization (WHO) showing that evidence for student forgiveness loans was weak (WHO 2010).

2.3 Implementing the policy

In the presentation of the policy, the federal government claims to have consulted with various stakeholders, including physicians and nurses organizations, Indigenous groups and federal, provincial, and territorial "committees" that all supported the initiative on principle, even though some discussion came up about the definition of "underserved" communities (Government of Canada 2012). In particular, there were diverse views on defining "underserved" areas, from need-based criteria as used in the extant provincial RFS to simpler geographic and population-based measures. Eventually, the federal government opted for the latter: the CSLP regulations define an "underserved rural or remote community" as a census subdivision (CSD) that is (a) not subdivided into census tracts, and (b) located outside the capital cities of the ten provinces.

Statistics Canada defines a CSD as a geographic area following approximately the administrative boundaries of municipalities (there are about 5,000 CSDs in the country). The 2011 Standard Geographical Classification (SGC) established by Statistics Canada lists all CSDs and identifies whether they are urban or not; and those not identified as urban are considered rural (Statistics Canada 2011). CSDs that are subdivided into census tracts are either Census Metropolitan Areas (CMAs) or Census Agglomerations (CAs) with a core of a population at least 50,000 and, still according to SGC 2011, a census metropolitan area (CMA) or a census agglomeration (CA) consists of one or more adjacent municipalities (census subdivisions) centred on a population centre (the core). A CMA must have a total population of at least 100,000, with 50,000 or more living in the core. A CA must have a core population of at least 10,000. Thus, an underserved rural or remote community can be seen as a municipality (census subdivision) located outside of any CMA or CA with an urban core population of 50,000 or more and outside a provincial capital. The only

provincial capital with a core population smaller than 50,000 is Charlottetown.

Based on such a definition, not all areas deemed "rural and remote" by the loan forgiveness policy are intuitively considered rural and remote, as it includes many small towns with a core population of 40,000. At the other end of the spectrum, areas that could be seen as rural are not deemed such by the policy, for example if they are administratively attached to a municipality that constitutes a CMA. An instance of the former is Timmins, Ontario, which is eligible to the loan forgiveness; an instance of the latter is the Wahnapitae First Nation, an area 45 kilometres northeast of Sudbury, with a population of less than 1,000, but administratively attached to the Greater Sudbury area and, as such, considered part of a CMA and therefore not eligible as a rural and remote community.

Being aware of the administrative nature of the rural-urban classification based on CMA and CA, Statistics Canada created a remoteness index based on spatial contiguity and density of commuting and accessibility (Alasia et al. 2017); the index ranges between 0 and 1 in theory, but the remotest areas are at about 0.55 and less accessible at 0.29. Our own calculations based on CSD data provided by CIHI[4] show that 17% of the areas classified as urban by the CLSR were considered "less accessible areas" in 2013 according to the Statistics Canada remoteness index, whereas 21% of rural areas according to CLSR were considered easily accessible or accessible areas (remoteness index lower than 0.29) and 43% only were classified as remote or very remote (index greater than 0.39). Overall, then, the federal government adopted a definition of underserved areas that did not take account of level of needs (defined by density of health care workers per population) and used a definition of rurality that, even though widely adopted, may not overlap neatly with the intuition of need, defined as "remoteness." This implementation issue might have had implications on the effectiveness of the policy, and that of similar provincial initiatives.

3 THE POLICY-MAKING PROCESS

On 15 December 2011, Bill C-13, a budget implementation act known as the "Keeping Canada's Economy and Jobs Growing Act" empowered the Minister of Human Resources and Skills Development to forgive student loans for medical professionals working in underserved rural or remote communities, under regulatory conditions by amending the Canada Student Financial Assistance Act (CSFA). This amendment to the CSFA was a minuscule part of a 600-page document addressing myriad issues in a post-recession budget; the majority Conservative government did not accept amendments and the text was voted as a whole, despite all the opposition parties voting against it. The loan forgiveness policy was not mentioned during debates in the House (two brief mentions only in Hansards). The policy itself was eventually a regulation, published in the Gazette on 19 December 2012,

[4]We acquired these data for a project to empirically measure the effect of the policy on physician and nurse density in rural areas, in a difference-in-difference framework, using non-rural areas as the control group.

with effect in January 2013, of the new regulations for both Canada Student Financial Assistance and Canada Student Loans.

4 IMPLEMENTATION AND EVALUATION

In the first fiscal year of the program (2013-2014), 1,580 health care workers benefited from the loan forgiveness program, for a total amount of $6.7 million (ESDC 2023). The document from ESDC does not provide the distribution by profession but the CSFAP annual reports show most of the beneficiaries were nurses (92%) and the average amount was close to the maximum per year. The number of beneficiaries increased for the first five years, as expected, to 5,195 in 2017-2018, or 3.3 times the initial intake. In that year, there were 845 family physicians, representing approximately 11% of the most recent five cohorts of family physicians and 4,362 nurses or approximately 5% of the most recent five cohorts of nurses. The number of beneficiaries and the total cost of the program peaked in 2018-2019 at 5,527 and $24.3 million before decreasing to 4,383 and $19.7 million in 2020-2021.

If the program had reached what was initially budgeted ($9 million), it should have been at $45 million in steady state. It can therefore be said that the program achieved slightly less than half of its planned potential. Between 600 and 700 census subdivisions out of a total of 3,381 eligible (based on our own calculations for all CSDs outside of Québec) have seen a doctor or nurse benefiting from the program practicing for their community, representing between 18% and 21% of eligible CSDs.

Data from the program (reported in ESDC 2023) show that 46% only of physicians benefited from the program more than one year, for an average number of years of 1.8; nurses stayed longer, with 62% staying for an average of 2.2 years. Using the distribution of number of years in the program on average for nurses (since they represent 90% of beneficiaries), we simulated the inflows for the fiscal years 2014-2015 to 2021-2022[5] showing an increase in the intake of the program from 1,580 health care workers in the initial year to 1,869 in the second year, up to 2,637 in 2019-2020 before decreasing slightly to 2,432 in 2020-2021 and then declining more steeply to 1,435 in 2021-2022. It can be said that the program reached its maximum enrolment quickly (after three years), plateaued at a steady state for a few years, and may now decline.

Was the program a windfall profit, accruing to professionals who would have worked in rural areas even without the loan forgiveness program? One way to answer that question would be to measure the density of physicians and nurses before and after the implementation of the program in rural areas, using urban areas as a control. No such evaluation has been conducted so far but ESDC surveyed beneficiaries (we could not find any details about this survey) to find that one-fifth of the respondents deemed the program very impactful to their decision to work in designated communities (23% for nurses; 13% among physicians). About 40% report that they would not have moved to a rural community without the pro-

[5]Spreadsheet available on request; please contact corresponding author via email.

gram. If the survey is representative, it can therefore be estimated that between 60% and 80% of beneficiaries would have worked in a rural area regardless, which is a strong windfall profit.

The survey also finds that 69% (63% of physicians and 70% of nurses) continued to work in a rural area after their benefit eligibility expired; if 40% were convinced by the program to work in a rural area (low hypothesis for the windfall effect), and assuming that all who would have worked in a rural area stay after eligibility, this leaves 29% of beneficiaries, or approximately 750 professionals working permanently (at least after eligibility) in a rural area who would not have done so without the program. This represents 0.1% of the total number of nurses and family doctors, and 0.9% of the five most recent cohorts of graduates in these two professions. It must be noted, though, that survey results are hard to reconcile with the distribution of durations in the program: unless students do not borrow money from the public (federal) program while they study, the only reason to drop out of the program is to leave a rural area.

Three scenarios are possible: a) students who work in rural areas are wealthy and do not borrow money while studying (this seems unlikely); b) students who work in rural areas borrow money from provincial programs or private banks and use the federal public program to top up their loans. This has been studied by Lochner et al. (2022), who find that private institutions poach the public loans program, attracting good prospects (those who would reimburse their public loans quickly) with low interest rates. As a result, the rates increase in the public program, accelerating the poaching process and jeopardizing the sustainability of public loan programs. The loan forgiveness policy may thus have slowed down the poaching process, making public loans more attractive to students who intend to work in rural areas from the start (in that sense, the windfall effect would not be a total waste of taxpayers' money); c) students who take up the forgiveness give up after a few years in a rural area and the program is much less effective than what the survey results suggest.

Lastly, it is important to know whether the beneficiaries of the program went to areas most in need. The use of a blanket definition for eligibility rather than the more fine-grained, need-based criteria used by the provincial programs may lead one to think that the federal Conservatives were happy to transfer resources to the rural areas that vote for them, rather than truly addressing the geographic inequity in the distribution of health human resources. Again, no evaluations were conducted on this aspect of the program but, using data from CIHI on physician density in CSD in Canada (see footnote 4), we can show that the density of physicians was not lower in rural areas compared to urban ones uniformly across Canada: there were many more family physicians and nurses per population in urban areas than rural areas in British Columbia (respectively 126 per 100,000 and 500 per 100,000 versus 54 and 300) but almost no difference in Ontario, contrasted results in the Atlantic provinces (more doctors in urban areas, 68 versus 60 per 100,000 but fewer nurses, 400 versus 550) and a clear advantage for rural areas in the prairies (37 versus 31 for physicians and 375 versus 200 for nurses). Clearly, a one-size-fits-all approach was doomed to fail in

reallocating health care professionals where they are most needed.

5 CONCLUSION

The objective of the federal student loan forgiveness implemented in 2013 was to attract more family physicians and nurses to underserved areas. This RFS program reached approximately half of its potential and 650 census divisions benefited from at least one health care professional with loan forgiveness. However, it is very likely that most of those who benefited would have practiced in a rural area even without the program, which thus generated a large windfall effect. Moreover, the areas that attracted those health care professionals were not necessarily those most in need in terms of number per population. The effect on health care utilization and health status in rural areas has not been evaluated so far.

6 STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS

Table 1 summarizes the strengths, weaknesses, opportunities, and threats.

Table 1: SWOT Analysis

Strengths	Weaknesses
• The policy addressed an inequity in density of physicians and nurses in rural areas and RFS are potentially effective at attracting junior physicians or nurses. Stakeholders were favourable on principle to the policy.	• Health human resources and post-secondary education are provincial responsibilities in Canada and a federal policy combining these two domains runs the risk of interfering with existing provincial policies and of being poorly accepted by provincial governments.
Opportunities	**Threats**
• The policy is very flexible and easy to implement as the federal government can change the rule of the forgiveness in the regulations. It is a year-for-year RFS.	• The policy comes with a large windfall effect and does not necessarily provide more health care professionals to areas most in need, due to the blanket definition of a rural area. As a result, it might not address the inequity in health care use or health status that initially motivated the policy.

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