
Estimates of the Number of Guaranteed Income Supplement Recipients Who Receive Income from Registered Retirement Savings Plans

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PRÉCIS

Un bénéficiaire du supplément de revenu garanti (SRG) subira une récupération au taux marginal minimum de 50 pour cent de tout revenu provenant d'un régime enregistré d'épargne-retraite (REER). Ainsi, les taux de rendement effectifs des REER pendant la retraite peuvent souvent être bas ou même négatifs comparativement à la solution d'encaisser le REER avant l'âge de 65 ans. Cette étude présente de nouvelles estimations fondées sur les données de contribuables et indique qu'environ 15 pour cent à 30 pour cent de tous les aînés ont reçu un revenu à un moment donné qui provenait de leur REER et qui était soumis à la récupération du SRG. Cette fourchette est légèrement inférieure à l'estimation de 2003 faite par Richard Shillington basée sur un examen des actifs détenus par des personnes approchant de l'âge de la retraite. Il en va de même pour un revenu provenant d'un régime de pension agréé. Compte tenu des politiques actuelles, de nombreux ménages qui seront bientôt bénéficiaires du SRG ou d'un programme de prestations connexe pourraient grandement bénéficier d'une la planification fiscale.

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ABSTRACT

A guaranteed income supplement (GIS) recipient will have at least 50 percent of any registered retirement savings plan (RRSP) income clawed back on the margin. Resulting RRSP effective rates of return during retirement can often be low or even negative relative to the alternative of cashing out the RRSP before age 65. This study presents new estimates from taxfiler data indicating that approximately 15 percent to 30 percent of all seniors have received income at some time that originated from their RRSPs and is subject to GIS clawback. This range is slightly lower than the 2003 estimate by Richard Shillington based on an examination of asset holdings of near-seniors. The same issues can apply to registered pension plan income. Given current policies, many households that will soon be recipients of the GIS or its related allowance programs may benefit substantially from tax planning.

KEYWORDS: GUARANTEED INCOME SUPPLEMENT ■ REGISTERED RETIREMENT SAVINGS PLAN ■ REGISTERED PENSION PLAN ■ RETURNS ■ EFFECTIVE RATES ■ TRANSFER PAYMENTS

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INTRODUCTION

A guaranteed income supplement (GIS) recipient whose registered retirement savings plan (RRSP) income increases from zero to \$1,000 will typically gain only an extra \$500 after the effect of the 50 percent GIS clawback is taken into account. In some income ranges, the GIS clawback can be 75 percent. Provincial income supplements can also have clawbacks. For example, for low-income seniors receiving both GIS and the guaranteed annual income system (GAINS) transfer in Ontario, the total clawback on additional income is often 100 percent and can exceed 100 percent.¹ There are also some GIS recipients who will pay personal income tax on RRSP income.

1 Thanks to an anonymous referee for pointing out that in Ontario, the total clawback rate can exceed 100 percent for a couple receiving a GAINS transfer, GIS, and the related transfer known as the allowance (paid when one of the couple is aged 65 or over and a GIS recipient, and the other is aged 60 to 64): Ontario, Ministry of Finance, *GAINS Benefit Rate Tables Summary for the Guaranteed Annual Income System (GAINS)* (Toronto: Ministry of Finance, 2013) (www.fin.gov.on.ca/en/lists/gains/pdf/1934.pdf), at table 4. This high clawback rate occurs when annual family income is between \$6,592 and \$8,832. Stapleton describes a case where he suggested that an individual defer her Canada Pension Plan benefits at age 65 because the GIS/GAINS clawback was 100 percent: John Stapleton, "A Story of Two Poor Seniors: Linda and Doris Are the Highest Taxed People in Ontario," *Open Policy Ontario*, January 21, 2014 (<http://openpolicyontario.com/a-story-of-two-poor-seniors-linda-and-doris-are-the-highest-taxed-people-in-ontario>).

Even with a clawback of “only” 50 percent, RRSP effective rates of return can be low or even negative during retirement as compared with the alternative of cashing out the RRSP before age 65. This problem is common: this study presents new estimates from taxfiler data indicating that approximately 15 percent to 30 percent of all seniors will at least once receive income from their RRSPs (including registered retirement income funds [RRIFs]) that is subject to GIS clawback. It is estimated that in about three-fifths of these cases, the clawback will be in excess of \$1,000. In addition, GIS clawbacks apply to registered pension plan (RPP) income: it is estimated that at least 30 percent of all seniors will at least once receive RRSP, RRIF, or RPP income that is subject to GIS clawback.

The range of estimates in this study is somewhat lower than, but broadly consistent with, Shillington’s estimate of a GIS clawback for 32 percent of recipients of RRSP/RPP income.² Shillington derived his estimate from Statistics Canada survey data for 1999 on near-senior households (where the older spouse was aged 55 to 64) with retirement savings greater than zero but less than \$100,000.³ Shillington defined retirement savings as the sum of the value of RRSPs and the estimated value of RPPs. The number \$100,000 was chosen because “an annuity purchased with \$100,000 will pay approximately \$10,000 per year (varying with age, sex, and type of annuity), which is generally not enough to make a senior ineligible for GIS.”⁴

There are two main questions regarding Shillington’s estimate. First, is his interpretation correct that if there is RRSP (or RRIF) income coincident with GIS income and hence subject to clawback, the senior has necessarily made a mistake? To clarify the issue, the next section of this article gives a simple example of how GIS clawbacks can lead to an RRSP contribution yielding a negative effective rate of return. A subsequent section describes some further examples. While in many cases GIS recipients should collapse their RRSPs by age 64, there are some circumstances in which continuing the RRSP can be advantageous because the tax sheltering of the accumulation of interest income is large enough to offset the clawback. However, I will argue that such circumstances are unlikely to be representative and that the continuation of an RRSP at age 64 by a prospective GIS recipient is infrequently the right choice.

2 Richard Shillington, *New Poverty Traps: Means-Testing and Modest-Income Seniors*, C.D. Howe Institute Background no. 65 (Toronto: C.D. Howe Institute, April 2003). On his website (www.shillington.ca), Shillington gives his study a more provocative title—“How Lower-Income Canadians Are Defrauded by RRSPs.” Shillington’s position shares similarities with that taken by Jonathan Kesselman and Finn Poschmann in *A New Option for Retirement Savings: Tax-Prepaid Savings Plans*, C.D. Howe Institute Commentary no. 149 (Toronto: C.D. Howe Institute, February 2001) and a number of Canadian financial commentators. For example, an oral interview with Malcolm Hamilton (particularly answer 8) includes the advice that saving usually does not make sense for those nearing retirement with low incomes: “How Should You Plan for Retirement?” *Globe and Mail*, October 15, 2009 (www.theglobeandmail.com/report-on-business/retirement/malcolm-hamilton-offers-retirement-planning-advice/article1325008).

3 Statistics Canada, *1999 Survey of Financial Security* (Ottawa: Statistics Canada, 2001).

4 Shillington, *supra* note 2, at note 5.

The second question is whether Shillington's estimate accurately predicts the number of seniors who will receive GIS and RRSP (or RRIF) income at the same time, and hence be subject to the clawback. For example, the \$100,000 cutoff is somewhat arbitrary, and those with RRSP assets may withdraw them entirely at age 64, before GIS eligibility.

I study this question using taxfiler data in Statistics Canada's longitudinal administrative databank (LAD). The data are described later in this article, followed by presentation of the results obtained from directly estimating the prevalence of GIS clawbacks associated with RRSP, RRIF, and RPP income on an annual basis. I also explore a related longitudinal analysis. It appears that the number of seniors subject to the clawback on their RRSP income is significant. Hence, in the concluding section, I argue that many near-seniors who will be GIS-eligible would benefit greatly from tax planning. (Some seniors may not even realize that they have been subject to the clawback, given that it is possible that an RRSP/RRIF withdrawal can precede the actual GIS reduction by as much as 18 months.) In addition, I argue that there is a case for considering policy changes that would reduce the clawback for low-income seniors who have saved for their retirement.

This study uses data up to 2008 and hence does not consider tax-free savings accounts (TFsas), which were introduced in the 2008 budget and came into effect on January 1, 2009. Future research will examine the impact of the introduction of TFsas on the use of RRSPs by low-income individuals.

A Simple Hypothetical Example

While more realistic cases will be considered in subsequent sections, I will begin by considering a simple example to illustrate the problem with the clawback. Suppose that individual *A* contributes \$1,000 to an RRSP for the first time at age 64. *A* has a marginal tax rate of 20 percent and so receives a personal income tax refund of \$200 associated with the RRSP contribution. *A* saves the \$200 outside the RRSP. Interest rates are 5 percent, so that one year later, at age 65, *A* has \$1,050 inside the RRSP and \$210 from saving the refund (assuming for simplicity that the interest on that saving is entirely untaxed).

Suppose that *A* is a GIS recipient at age 65 and withdraws the RRSP holding that year. Because the RRSP withdrawal will count as income for GIS purposes, it will be subject to a GIS clawback of 50 percent. Hence, *A* will have 50 percent left from the \$1,050, or \$525, plus the \$210 from saving the refund. The total of these amounts (\$735) is less than the \$1,000 original contribution. The effective rate of return to *A* on the RRSP contribution is *minus* 26 percent.

The effective rate of return is negative because RRSP withdrawals are counted as income for the purposes of the GIS clawback. But in this case \$1,000 of the withdrawal is deferred income from the previous year. The deferral leads to a refund at the time of contribution, but the funds are taxed at the time of withdrawal. Because the GIS clawback rate of 50 percent exceeds the marginal personal income tax rate at the time of contribution, a negative effective rate of return is possible.

If the example is altered so that the \$1,000 is already in the RRSP at age 64 rather than a fresh contribution, the same arithmetic argues that the \$1,000 should, if possible, be withdrawn immediately from the RRSP rather than left until age 65, after which any withdrawal will be subject to clawback.

SOME OTHER SCENARIOS

Suppose that a prospective GIS recipient chooses not to cash out her or his RRSP at age 64 in order to avoid the clawback. In contrast to the hypothetical example described above, it could be that the individual will continue the RRSP (rolling it into an RRIF) for many years, gaining such advantage from the ability of RRSPs/RRIFs to shelter cumulative investment gains that there is a higher effective rate of return to maintaining the RRSP/RRIF, even if withdrawals are subject to GIS clawback.⁵

In a related paper published in 2013,⁶ I worked out in detail a number of scenarios along these lines. One of the examples under RRIF scenario II of that paper considers a case with assumptions that strongly favour maintaining the RRSP. The annual interest rate is 5 percent, the marginal tax rate at age 64 is 40 percent, and the individual transfers all RRSP funds to a RRIF at age 70, thereafter making only the minimum, legally required withdrawals (under the rules in place in 2008) until a given age, at which point the balance is withdrawn. If there are no personal income taxes applicable after age 64, this strategy will pay a higher effective return than saving in the same assets outside an RRSP, provided that the age of final withdrawal is 73 or greater.

While a threshold of age 73 makes the strategy of keeping the RRSP seem reasonable, there are a number of reasons why this example should not mitigate concerns about the interaction of RRSPs and the GIS system.

First, most prospective GIS recipients will have lower marginal tax rates at age 64. If the individual's marginal tax rate at age 64 is 30 percent, the breakeven age jumps from 73 to 83; if the marginal tax rate at age 64 is 20 percent, the breakeven age is over 94. Life expectancy at age 65 is about 83.5 years for men and 86.6 years for women. Also, the example leans heavily on the individual's being able to attain an interest rate of 5 percent in interest-bearing securities. If the interest rate is lower, or if funds can be saved outside the RRSP/RRIF with some tax sheltering of returns (for example, through investments in equities), again the breakeven age will be pushed up.

5 It also may be that the individual decides not to cash out because she or he expected a different set of circumstances—for example, sufficient income past age 65 to be above the GIS threshold. While I believe that many near-seniors do not collapse their RRSPs because they do not understand or anticipate the clawback, this study will focus on consequences rather than reasons. The study will also not address the possibility that an individual is prepared to accept the subnormal returns of maintaining the RRSP because the RRSP is a commitment device for saving.

6 Michael R. Veall, *Estimating the Number of Guaranteed Income Supplement Recipients Who Have Mistakenly Saved in Registered Retirement Savings Plans and Registered Pension Plans*, Canadian Labour Market and Skills Researcher Networker Working Paper no. 119 (Vancouver: CLSRN, April 2013), appendix (www.clsrn.econ.ubc.ca/workingpapers/CLSRN%20Working%20Paper%20no.%20119%20-%20Veall.pdf).

Second, in many cases, the individual will need to access more funds earlier than this maximum-holding-period scenario allows, and this will tend to increase the relative advantage of cashing out the RRSP at age 64. In a later section, I will show that a significant number of GIS recipients received RRSP income between the ages of 65 and 70, before they were legally required to take such income. Further, as discussed in the introduction, in many cases the clawback rate is higher than 50 percent.⁷

In passing, I also note that, under current law, *all* RRSP recipients who would be subject to GIS clawback and who face at age 64 a marginal tax rate of less than 50 percent will receive larger returns if they transfer as much as possible from their RRSPs to their TFSAs at age 64. This does not appear to be well known.

Withdrawal from an RRSP at age 64 is not always possible. It may be that the individual cannot cash out the RRSP before age 65 because the funds are locked in—for example, as a result of a transfer from an RPP. In the following analysis, income from life income funds and from annuities from locked-in RRSPs is included as part of RRSP income, and income from locked-in retirement income funds is included as part of RRIF income. The data do not separate these payments out. Regardless, these situations are still examples of RRSP saving yielding low effective rates of return during the retirement period.

The same logic that applies to RRSP holdings applies to RPP assets. In many cases, it may be that GIS recipients with RPPs that can be cashed out at age 64 should take advantage of this opportunity. It might also be argued that RPPs would provide more equitable effective rates of return to their low-income members if they permitted cashing out of small pensions at age 64 to those plan members who will be GIS-eligible.⁸

In later sections of this article, I will return the focus to estimating the number of individuals who receive income from an RRSP, RRIF, or RPP that is subject to GIS clawback.

DATA USED IN THE STUDY

The data source for the study—the LAD—is an anonymized, annual 20 percent sample of taxfilers for Canada from 1982 to 2009. The analysis in this study begins in 1992, the first year for which all required variables (particularly the variable including

7 If the clawback rate is 75 percent or higher, or if personal income tax is applicable to the RRSP income, the breakeven age is always 94 or greater. While I do not investigate this scenario, in some cases it can be advantageous to contribute to an RRSP after age 65 (when eligible) in order to maximize GIS payments. See, for example, Preet Banerjee, “How RRSP Payments Can Help Seniors with Benefits,” *Globe and Mail*, February 24, 2012 (www.theglobeandmail.com/globe-investor/personal-finance/how-rrsp-payments-can-help-seniors-with-benefits/article548651).

8 For a discussion of the interaction of pension plans and the old age security (OAS)/GIS system more generally, see Deborah Fretz, Alan Macnaughton, and Michael R. Veall, *Policy Approaches To Promote Private and Occupational Old-Age Provision in Canada* (Washington, DC: Bertelsmann Foundation, January 2002) (www.bertelsmann-stiftung.de/cps/rde/xbr/SID-13A7B63C-80444CD4/bst/BST-VS-4-CAN.pdf), at 4.

GIS receipt) were available, and ends in 2008, the last year available at the time the calculations for this study were completed. LAD coverage expanded substantially in 1990, when the goods and services tax credit and the child tax benefit were introduced, resulting in an increase in the number of taxfilers. Coverage is therefore very close to complete, and there is no attrition except, for example, as a result of death or emigration. All records are linked longitudinally. There is also household linkage: in this study, couples include common-law partners.⁹ In some cases, the LAD creates this linkage by address matching.

In a 2012 paper, Finnie and Gray¹⁰ discuss how GIS benefits are reported in the LAD as the sum of GIS and the spouse's allowance (the latter now called "the allowance" and paid to those aged 60 to 64 whose spouse is 65 or over and a GIS recipient). In this study, I include in GIS the allowance and the allowance for the survivor, which is the allowance extended for someone aged 60 to 64 who has received the allowance and whose spouse has died. Recipients in the allowance programs also faced clawbacks, in many cases at a rate of 75 percent rather than 50 percent. Finnie and Gray also note that GIS receipt may be underreported in the LAD before age 67.

SOME EMPIRICAL RESULTS: ANNUAL

Table 1 examines the coincidence of GIS receipt and various types of retirement income for 2008. (In a longer working paper,¹¹ these values are computed and graphed from 1992 to 2008. The values vary, but those for 2008 are not unusual.)

A serious data shortcoming needs to be highlighted. What is called "RRSP income" in this study is derived from line 129 of the T1 federal personal income tax form and includes ordinary withdrawals from an RRSP, RRSP annuity income, and (likely unimportantly for this analysis), since 1995, repayments not made under a home buyers' plan.¹² But critically, it does not include RRIF income, which is included with RPP income, as will be discussed below.

Using this definition of RRSP income, we can see from row 1 in the table that 8 percent of couples who received GIS in 2008 also received RRSP income and were

9 The analysis throughout excludes from any yearly count or sum those who die in that year or those whose spouse has died in that year. Anyone not currently married or currently in a common-law relationship is treated as single.

10 Ross Finnie and David Gray, "Guaranteed Income Supplement (GIS) Status Amongst the Retired Population—An Analysis of the Incidence and the Dynamics," draft paper prepared for the CLSRN/HRSDC project "Challenges for Canada's Retirement Income System" (2012).

11 Veall, *supra* note 6.

12 RRSP income from line 129 of the general income tax return consists of the following T4RSP slip entries: box 16 (RRSP annuity payments), box 18 (refund of payments), box 28 (payments triggered by such circumstances as the acquisition of an ineligible investment within an RRSP or by using property within an RRSP as a loan), box 20 (withdrawal of excessive premiums), box 22 (withdrawal), and box 26 (payments upon deregistration). It also includes box 34 (amounts deemed or received upon death), but this should not matter here since those who die, or whose spouse dies, in the particular year have been excluded from the sample.

TABLE 1 RRSP Income, RRIF Income, and RPP Income, Personal Income Taxes and GIS Recipients, 2008

Variables	Percentage of GIS recipients with positive value			As a percentage of all GIS income received		
	Couples	Single women	Single men	Couples	Single women	Single men
1. RRSP income	8	3	3	6	3	3
2. Personal income taxes (from those also receiving RRSP income)	5	2	2	2	1	1
3. Sum of RRIF and RPP income	49	31	28	58	25	21
4. Personal income taxes (from those also receiving RRIF or RPP income)	23	12	8	12	4	4
5. Sum of RRSP, RRIF, and RPP income	78	42	27	61	30	24
6. Personal income taxes (from those also receiving RRSP, RRIF, or RPP income)	25	14	14	13	5	5
7. Sum of RRSP and RRIF income (not available by marital status/gender).		12			10	

GIS = guaranteed income supplement.

RPP = registered pension plan.

RRIF = registered retirement income fund.

RRSP = registered retirement savings plan.

Notes: (1) "Receiving" in relation to a couple means received by either spouse. (2) RRSP income does not include RRIF income. (3) The first three columns give the percentages of GIS recipients with positive values for the corresponding variable, while the last three columns give the value of the variable as a percentage of GIS income received. For example, the column 1 "Couples" entry in the row "RRSP income" gives the percentage of couples receiving GIS who also received positive RRSP income, while the column 4 "Couples" entry in the same row gives RRSP income received by GIS-receiving couples as a percentage of all GIS income received by couples. The column 1 "Couples" entry in the row "Personal income taxes (from those also receiving RRSP income)" gives the percentage of couples receiving GIS who also received RRSP income and paid personal income taxes, while the column 4 "Couples" entry in that column gives the amount of such taxes as a percentage of GIS income received by couples. In all cases, personal income taxes include both federal and provincial taxes paid, with those for Quebec being estimated. (4) Couples receiving GIS are defined as those in married or common-law relationships in which at least one partner received GIS income. Single women and single men are GIS recipients other than those in a married or common-law relationship.

therefore subject to the clawback. The fourth column of that row indicates that RRSP income was about 6 percent of all GIS income received by couples. The values for single women and single men are smaller.¹³

Row 2 of the table shows that of the 8 percent of GIS recipient couples who (from the previous row) received RRSP income in 2008, the majority (5 percent of all GIS recipient couples) also paid provincial and federal personal income tax. The rest of the row gives smaller values for single men and single women, and shows that for all couples receiving both GIS and RRSP income, total federal and provincial personal income tax paid was only 2 percent of total GIS payments received.

Rows 3 and 4 are comparable to rows 1 and 2 except that here the income in question is RRIF income plus RPP income. RRIF income and RPP income cannot be disentangled because both are included in income reported at line 115 on the federal T1 personal income tax form (along with Saskatchewan pension plan income and some other items that are probably unimportant for most GIS recipients, such as income from a deferred profit-sharing plan or from a foreign public or private pension plan).¹⁴ This category also does not include income from a supplemental employment retirement plan (whether or not the plan is set up as a retirement compensation arrangement). For simplicity, I will refer to this category as “RRIF + RPP” income. It can be seen that 49 percent of couples who received GIS also received positive RRIF + RPP income, with smaller percentages for single men and women.

Rows 5 and 6 are again comparable to rows 1 and 2, this time indicating, for example, that about 78 percent of all couples receiving GIS were also recipients of positive RRSP + RRIF + RPP income, with about one-third of these paying personal income tax. The comparable value for single women is 42 percent (with one-third of these paying personal income tax); for single men, it is 27 percent (with about one-half of these paying personal income tax). Aggregating these data without regard to gender and marital status, it turns out that approximately 50 percent of all GIS recipients received RRSP, RRIF, or RPP income, of whom a little more than one-third paid personal income tax. For this group, personal income taxes totalled a little less than 10 percent of their GIS receipts.

13 As part of the calculations, this analysis was repeated with thresholds to check whether there was an inordinately large clustering at near-zero values. Taking 2008 values for illustration, of those who received GIS, about 82 percent of couples received at least \$2,000 and about 90 percent of single individuals received at least \$1,000. Of those households that received GIS and RRSP income, about 93 percent of couples and single individuals received RRSP income of at least \$500, more than 95 percent of couples received RRSP income of at least \$200, and more than 97 percent of single individuals received RRSP income of at least \$100.

14 In terms of slip entries, line 115 includes from a T4A slip, box 16 (pension or superannuation), box 24 (life annuities purchased, for example, with refunded RRSP premiums, from the proceeds of a life income fund, or from a deferred profit-sharing fund but not from a life insurance policy or within an RRSP), and box 28 (variable pension benefits); from a T4RIF slip, box 16 (standard RRIF payments) and box 20 (RRIF payments upon deregistration); from a T3 slip, box 31 (qualifying pension income); and from a T5 slip, box 19 (accrued annuities from a life insurance policy).

Row 7 represents an attempt to isolate RRSP + RRIF income (that is, to remove RPP income from the values in row 5). For this purpose, unpublished estimates of total RRIF outflows for all individuals are used.¹⁵ The number of GIS recipients with RRIF income is then estimated by assuming that the ratio of the number of GIS recipients with RRIF income to GIS recipients with RRSP income is the same as the overall ratio of RRIF income recipients (from the unpublished estimates, where those who have died are excluded) to RRSP income recipients (available in the LAD). A similar technique is used to estimate the RRIF income received by GIS recipients by assuming that the ratio of GIS-recipient RRIF income to GIS-recipient RRSP income is the same as the overall ratio of RRIF income (from the unpublished estimates) to RRSP income (available in the LAD). It is not possible using this method to differentiate between couples, single women, and single men, so estimates are based on total individuals.¹⁶ I note in passing that these estimates could be refined significantly if the LAD were linked to Statistics Canada's Survey of Financial Security.¹⁷

The estimates indicate that on an annual basis, about 12 percent of all GIS recipients received either RRSP or RRIF income. This may be an overestimate because the method unavoidably double-counts those who have both RRSP *and* RRIF income. Hence, I estimate the value at 10 percent. This is double the estimate for RRSP income alone from row 1, where converting the couple and single figures yields an estimate that about 5 percent of all GIS recipients overall received RRSP income.

To summarize so far, with respect to RRSP income (remembering that this does not include RRIF income), *on an annual basis* for 2008 the GIS clawback appears to affect about 8 percent of couples receiving GIS and 3 percent of single men and women receiving GIS, or in total about 5 percent of all GIS recipients. More than half of these individuals faced personal income tax in addition to the GIS clawback. Including RRIF income in these calculations approximately doubles the number of individuals subject to GIS clawback, to about 10 percent of all GIS recipients. If one considers the number of individuals subject to GIS clawback as a result of receiving RRSP, RRIF, or RPP income, this is close to 80 percent of GIS-recipient couples (with about one-third paying personal income taxes), over 40 percent of single female GIS recipients (with about one-third paying personal income taxes), and over 25 percent of all single male GIS recipients (with about one-half paying personal income taxes). This is approximately 50 percent of all GIS recipients, with a little more than one-third of these also being subject to personal income tax on RRSP, RRIF, or RPP income.

15 These were kindly provided to me by Marllena Ifrim, Habib Saani, and Joe Wilkinson of Statistics Canada.

16 An anonymous referee pointed out that this probably tends to overstate the coincidence of GIS and RRIF income, since those who move their funds into RRIFs are likely on average richer than those who do not. This is one reason why this study essentially uses the RRSP-alone results as a lower bound.

17 The impact on underlying consumption behaviour could also be analyzed if the LAD were linked to the Statistics Canada Survey of Household Spending.

Hence, very roughly five times as many GIS recipients reported RRSP, RRIF, or RPP income each year as reported RRSP or RRIF income alone.

SOME EMPIRICAL RESULTS: LONGITUDINAL

Shillington's estimate suggests that 32 percent of all seniors will be affected by the GIS clawback on income from registered savings. That does not mean that they will be affected on an annual basis, but rather at least once during their retirement. GIS recipients may withdraw their RRSP or RRIF savings all at once or slowly: in either case, the clawback is applicable.

Hence, to explore Shillington's estimate further, table 2 uses the longitudinal feature of the LAD to look at the RRSP income history (including a spouse's RRSP income) back to age 60 of all seniors (not necessarily GIS recipients) who were aged 65 to 76 in 2008 and who had filed continually.¹⁸ (The cutoff of age 76 was used so that problems related to attrition, mostly because of death, would not be severe. Because, during this sample period, an RRSP was required to be closed at age 70 and either converted to an annuity or a RRIF, RRSP income that appears initially at an age above 70 will largely be from those who missed the initial deadline or will be a withdrawal by a younger spouse.) Continuing RRSP income after age 70 will largely be RRSP annuity income (recalling the caveat that RRSP income does not include RRIF income).

The first column of the table gives the percentage of those between ages 65 and 76 in 2008 who, during at least one year when they were aged 60 to 64, received both RRSP and GIS income in the same year. There are two ways to be counted for GIS receipt at this age. One way is to receive GIS income through either the allowance or the allowance for the survivor, which requires being aged 60 to 64 and to have a spouse who is a GIS recipient, or to be the widow or widower of a spouse who was a GIS recipient. The other way is not to be receiving any GIS income through an allowance but nonetheless to have a spouse who is a GIS recipient. In either case, the RRSP income received by such individuals is subject to GIS clawback.

It can be seen that this percentage is around 4 percent to 5 percent for all ages as of 2008. This is just under a third of those who received some GIS from age 60 to 64. To compare, during the ages 60 to 64 about two-fifths of those who did not receive any form of GIS made RRSP withdrawals. Mawani and Paquette¹⁹ explore pre-retirement RRSP withdrawals more extensively.

The second column of the table shows that a stable 3 percent to 3.7 percent of those aged 65 to 76 in 2008 received both GIS and RRSP income in the year in which they turned 65.

18 If the requirement for continual filing is dropped, the values in table 2 fall slightly, with the largest difference being the age 76 value in the third column, which falls from 13.6 to 11.9.

19 Amin Mawani and Suzanne Paquette, "Pre-Retirement RRSP Withdrawals" (2011) 59:2 *Canadian Tax Journal* 183-219.

TABLE 2 Percentages of Seniors in 2008 by Current Age Who Received RRSP Income in the Same Year as GIS Income, Ages 65 to 76

Age in 2008	Percentage with GIS and RRSP income in the same year when 60 to 64	Percentage with GIS and RRSP income when 65	Percentage with GIS and RRSP income in the same year from age 66 to year 2007	Percentage with GIS and RRSP income in 2008
65	4.3	3.0	na	3.0
66	4.2	3.1	na	2.4
67	4.0	3.3	2.6	2.4
68	4.8	3.5	4.5	2.4
69	4.4	3.5	6.1	2.4
70	4.4	3.4	8.5	2.4
71	4.9	3.2	9.8	1.4
72	4.8	3.5	10.4	1.4
73	4.8	3.2	11.2	1.2
74	4.8	3.8	11.5	1.2
75	4.9	3.6	12.2	1.1
76	4.9	3.7	13.6	1.2

GIS = guaranteed income supplement.

RRSP = registered retirement savings plan.

na = not applicable.

Notes: (1) "Received" includes received by a spouse. (2) "Age in 2008" means the age of the taxfiler as of December 31, 2008. The "Percentage with GIS and RRSP income in the same year when 60 to 64" for each given age in 2008 is the percentage of those at that given age in 2008 who received RRSP income and GIS at least once in the same year when they were any age between 60 to 64. The "Percentage with GIS and RRSP income when 65" for each given age in 2008 is the percentage of those at that given age in 2008 who received RRSP income when they were 65. The "Percentage with GIS and RRSP income in the same year from age 66 to year 2007" for each given age in 2008 is the cumulative percentage of those at that given age in 2008 who received RRSP income and GIS at least once in the same year before 2008 when they were age 66 or greater. (3) All entries in the table are based only on seniors that age who filed taxes continually from age 60. (4) RRSP income does not include RRIF income.

The third column is perhaps the most interesting. It gives the cumulative percentage of those at each given age in 2008 who, sometime after age 65 and before 2008, received both GIS and RRSP income in the same year (that is, were subject to the clawback at least once after age 65 and before 2008). Hence, it can be seen that about 2.6 percent of those aged 67 in 2008 received GIS and RRSP income when they were 66. About 4.5 percent of those aged 68 in 2008 received GIS and RRSP income when they were either 66 or 67. About 6.1 percent of those aged 69 in 2008 received GIS and RRSP income when they were either 66, 67, or 68. This value continues to increase toward the bottom of the column such that for those who were 76 in 2008, about 13.6 percent received RRSP income at least once between 1998 and 2007, when they were aged 66 to 75.

The fourth column shows that 1.2 percent of those aged 76 in 2008 received both GIS and RRSP income. This is about 3 percent of all those who received GIS in that year.

Hence, it is estimated that at least 13.6 percent of seniors who were 76 in 2008 at least once received RRSP income (or their spouses received RRSP income) in the same year as GIS income was received, and as a result were subject to GIS clawback. Since the calculation was up to age 75 and did not include occurrences when aged 65, it seems likely that the lifetime estimate is higher. I will conservatively set it at 15 percent.

Are the amounts subject to clawback significant? Table 3 shows that the values in table 2 do not fall off much when the restriction that both GIS income and RRSP income must exceed \$500 is added. As shown in the third column of table 3, 11.6 percent of those aged 76 in 2008 received more than \$500 of GIS and \$500 of RRSP income in the same year in at least one year when they were older than 65 and younger than 76. Table 4 shows that this number falls to 6.9 percent if the threshold is raised to \$2,000 (implying a clawback of at least \$1,000). My view is that the clawback is a substantial sum for low-income seniors; the result suggests that about three-fifths of the individuals who do have simultaneous GIS and RRSP income receipt have a financial penalty that is at least this significant. Note that if RRSP income is greater than \$2,000, the personal income tax pension income amount will have been maximized, in many cases increasing the effective rate of income tax that may be paid on the RRSP income.

As a final exercise, table 5 repeats the approach of table 2 except that rather than using RRSP income alone, individuals are included if they received RRSP, RRIF, or RPP income. The third column shows that 31.1 percent of all those aged 76 in 2008 had received both GIS and RRSP, RRIF, or RPP income sometime during ages 66 to 75. This is very close to Shillington's estimate of 32 percent, but does not include RRSP, RRIF, or RPP recipients who faced clawback only at ages 60 to 64, at age 65, or ages 76 or greater. While there is no allowance for attrition and table 4 suggests that the effects on some individuals are small, this is nonetheless a striking result.

Hence I estimate, I believe conservatively, that about 15 percent of seniors will have GIS clawback applied to their RRSP income (not including RRIF income) sometime during their lives. Earlier results (discussed under table 1) suggest that this number would be up to twice as large if estimates of RRIF income were included, indicating a range of 15 percent to 30 percent. The 30 percent value may be high because it is only slightly lower than the 31 percent value when RRSP, RRIF, and RPP income are all included, this last value being essentially equal to Shillington's estimate.

CONCLUSIONS

On the basis of data on asset holdings by near-seniors, Shillington estimated that 32 percent of near-seniors were saving for retirement with RRSPs that would yield income that would likely be subject to GIS clawback, as well as potentially to personal income tax. While Shillington argued that the 32 percent were making a

TABLE 3 Percentages of Seniors in 2008 by Current Age Who Received RRSP Income > \$500 in the Same Year as GIS Income > \$500, Ages 65 to 76

Age in 2008	Percentage with GIS and RRSP income both >\$500 in the same year when 60 to 64	Percentage with GIS and RRSP income both >\$500 when 65	Percentage with GIS and RRSP income both >\$500 in the same year from age 66 to year 2007	Percentage with GIS and RRSP income both >\$500 in 2008
65	3.6	2.1	na	2.1
66	3.7	2.3	na	2.0
67	3.7	2.5	2.2	2.1
68	4.1	2.4	3.7	2.0
69	3.9	2.6	5.1	2.2
70	4.0	2.5	7.0	1.9
71	4.1	2.4	8.3	1.2
72	4.3	2.6	8.8	1.1
73	4.2	2.4	9.4	1.0
74	4.3	2.5	10.0	1.0
75	4.4	2.6	10.3	1.0
76	4.3	2.6	11.6	1.0

GIS = guaranteed income supplement.

RRSP = registered retirement savings plan.

na = not applicable.

Notes to table 2 apply except that for an individual to be counted as a GIS and RRSP recipient in this table, both GIS and RRSP income had to exceed \$500 for at least one year during the range of ages considered in each column.

mistake, could it be that individuals are gaining so much from tax-free accumulation within RRSPs as to offset the clawback? The current study, along with my earlier research,²⁰ considers the possibility but suggests that this is an unlikely explanation for many individuals, particularly when considering the alternative of cashing out an RRSP at age 64 to avoid the clawback.

Shillington's estimate was based on examination of the data on asset holding by near-seniors. The empirical focus of this study is the LAD, which is taxfiler data. The estimation is somewhat hampered by the fact that the LAD does not provide direct information on RRIF income, a defect that could be mitigated if the LAD were linked with Statistics Canada's Survey of Financial Security. In any case, this study concludes that between 15 percent and 30 percent of all seniors will likely receive GIS and RRSP/RRIF income in the same year at least once in their retirement, and hence will be subject to GIS clawback. It is further estimated that approximately three-fifths of these recipients will be subject to a clawback of at least \$1,000 on their income for the year.

20 Supra note 6.

TABLE 4 Percentages of Seniors in 2008 by Current Age Who Received RRSP Income > \$2,000 in the Same Year as GIS Income > \$2,000, Ages 65 to 76

Age in 2008	Percentage with GIS and RRSP income both >\$2,000 in the same year when 60 to 64	Percentage with GIS and RRSP income both >\$2,000 when 65	Percentage with GIS and RRSP income both >\$2,000 in the same year from age 66 to year 2007	Percentage with GIS and RRSP income both >\$2,000 in 2008
65	2.5	0.9	na	0.9
66	2.6	1.0	na	0.9
67	2.5	1.0	1.1	1.0
68	2.9	1.0	2.0	0.9
69	2.7	1.1	3.0	1.0
70	2.8	1.0	4.2	0.8
71	2.8	1.0	5.1	0.4
72	3.0	1.1	5.4	0.4
73	2.9	1.0	6.0	0.3
74	3.0	1.0	6.3	0.3
75	3.1	1.0	6.4	0.3
76	2.9	1.0	6.9	0.3

GIS = guaranteed income supplement.

RRSP = registered retirement savings plan.

na = not applicable.

Notes to table 2 apply except that for an individual to be counted as a GIS and RRSP recipient in this table, both GIS and RRSP income had to exceed \$2,000 for at least one year during the range of ages considered in each column.

Compared with most RRSP/RRIF income, RPP income is often much less discretionary. Nonetheless, the clawback is paid on RPP savings as well, and if RPP income is included in the analysis along with RRSP and RRIF income, the estimate of the percentage of seniors who are subject to clawback on RRSP, RRIF, or RPP income at least once is at least 30 percent. Overall, despite a number of caveats to this study's estimates that have been detailed in earlier sections, it is clear that there are many RRSP savers and RPP members who end up being subject to GIS clawback, and it is likely that many of them would have been better off if at least some of their saving had been in other forms.

The policy implications of this research are affected by the presence of TFSA, which became available in 2009, after the data period for this study. The introduction of this alternative savings mechanism strengthens the view that low-income seniors could benefit greatly from tax planning because, although they face large effective tax rates, there are other tax-saving opportunities to be considered. A significant number of near-seniors who are likely to be GIS recipients are contributing to or holding RRSPs. They should be investing in TFSA. The federal government should consider distributing information to taxpayers, particularly as they approach retirement, about the relative benefits of RRSP and TFSA saving, with mention of the

TABLE 5 Percentages of Seniors in 2008 by Current Age Who Received RRSP, RRIF, or RPP Income in the Same Year as GIS Income, Ages 65 to 76

Age in 2008	Percentage with GIS and RRSP, RRIF, or RPP income in the same year when 60 to 64	Percentage with GIS and RRSP, RRIF, or RPP income when 65	Percentage with GIS and RRSP, RRIF, or RPP income in the same year from age 66 to year 2007	Percentage with GIS and RRSP, RRIF, or RPP income in 2008
65	8.8	11.7	na	11.7
66	9.1	12.5	na	11.4
67	9.4	13.5	12.0	12.0
68	10.0	13.6	15.4	12.7
69	9.6	14.5	18.5	13.6
70	10.0	14.3	23.1	14.9
71	10.2	14.3	26.4	16.2
72	10.4	14.9	28.1	16.3
73	10.3	14.8	29.1	16.2
74	10.4	15.2	30.2	16.4
75	10.4	15.2	31.0	16.5
76	10.6	15.0	31.1	16.5

GIS = guaranteed income supplement.

RPP = registered pension plan.

RRIF = registered retirement income fund.

RRSP = registered retirement savings plan.

na = not applicable.

Notes to table 2 apply except that instead of RRSP income alone, the table reports results for RRSP, RRIF, or RPP income.

interaction with the GIS clawback.²¹ It would also be useful if tax practitioners spread this idea more widely in ways that may reach prospective GIS recipients.

It might also be argued that RPPs would provide more equitable effective rates of return to their low-income members if they permitted cashing out of small pensions at age 64 to those plan members who will be GIS-eligible.

Policy consideration could also be given to a small exemption of RRSP and RRIF income for the purposes of GIS calculation, analogous to the \$3,500 exemption that has been given to labour income earned during retirement. It has been estimated in this study that about 180,000 GIS recipients (10 percent of the total of 1.8 million GIS and allowance recipients) receive RRSP or RRIF income in the year. A \$1,000 exemption is worth \$500 to each individual, and hence it could cost the federal

21 It has been suggested that a switch from RRSP to TFSA contributions has an immediate positive effect on the government budgetary balance, although Robbins and Veall argue that this conclusion is simplistic and misleading: Jenna Robbins and Michael R. Veall, *Future Taxes on Pension Savings as a Government Asset*, C.D. Howe Institute Background no. 63 (Toronto: C.D. Howe Institute, October 2002).

treasury \$90 million annually ($\$500 \times 180,000$)—though this very rough calculation does not take into account the likelihood that some individuals would not be able to use the entire exemption and that the exemption would create new GIS claimants. In any case, these considerations would be swamped by extending any exemption to RPP income. There is a good argument for the latter reform, but it would increase the cost to the treasury—possibly (as suggested earlier in this article) by a factor of five. Regardless, these numbers are only offered as ballpark values to facilitate judgment as to whether firmer estimates based on more detailed modelling and better data would be valuable. But they do reinforce the view that the GIS claw-back on RRSP and RPP income is in aggregate quite costly to the affected group: low-income, GIS-recipient seniors who sacrificed consumption in order to save for their retirement.

