

Intelligence MEMOS



From: Alexandre Laurin
To: Canada's ministers of finance
Date: August 28, 2019
Re: **THE UGLY ARITHMETIC OF ALL-INCLUSIVE TAX RATES, PART II**

In my [new C.D. Howe Institute E-Brief](#), I examined the effects of “all-inclusive” tax rates through separate lenses, the marginal effective tax rate (METR) and the participation tax rate (PTR).

These all-inclusive tax rates take into consideration the impact of earning income on fiscal benefit entitlements, such as the Canada Child Benefit, as well as income and payroll taxes, and other contributions.

I found that low-income Canadian families with children encounter high “all-inclusive” tax rates that could discourage parents from working more or entering the workforce. Many stay-at-home parents (in lower-income families) considering taking on a job stand to lose a significant chunk of their prospective income through taxes and reduced fiscal benefits.

Yesterday, we looked at marginal tax rates. Today we examine the participation tax rate, which affects a stay-at-home parent considering whether to get a job.

Imagine a family of four with two young children, residing in Alberta. One parent earns \$30,000 and the other stays at home, for a total family income of \$30,000. The earning parent pays \$2,262 in federal income taxes and contributions (EI and CPP), but no Alberta income tax, for total payments of \$2,262. The family is also entitled to receive a CCB of \$13,278, a GST tax credit of about \$884, a Canada Workers Benefit of \$783, and \$3,299 in provincial benefits.

Total benefits received minus taxes and contributions paid yields an initial family disposable income of \$45,982. The stay-at-home parent then considers taking on employment that would earn \$30,000. The family's disposable income would increase by \$14,737, rather than the full \$30,000, to reach \$60,719 – reflecting the loss of \$5,559 in federal benefits, \$2,054 in provincial benefits and an extra \$7,650 in federal and provincial taxes and contributions, which includes the loss of the spousal credit for the family. The “all-in” tax rate on the prospective income would be 51 percent.

[Table 1 in my recent E-Brief](#) shows PTR calculations for various family scenarios by province. In one scenario, where the first parent already earns \$42,000, the other parent contemplating earning \$20,000 would face the highest PTR in Quebec (a staggering 67 percent if the family has three children, 61 percent if two children and 53 percent if one child), followed by Ontario (56, 51 and 39, respectively) and Alberta (56, 50 and 42), mainly due to the phase-out of generous income-tested child-related fiscal benefit programs. Generally, about half of the PTR value at lower family income thresholds is accounted for by the withdrawal of income-tested government benefits.

So how many families fall in those high PTR ranges? One way to determine this is to compute prospective PTRs for a large representative sample of the Canadian population, and generate a frequency distribution ([see Figure 4 here](#)).

The share of stay-at-home parents (in two-parent families) facing a PTR greater than 50 percent increased gradually from 1995 to 2015. From the mid-1980s to the mid-1990s, very few stay-at-home parents faced a PTR in excess of 50 percent; by 2015, the share facing such a high PTR had increased to 13 percent. In 2019, 12 percent of non-working parents face a relatively high PTR of more than 50 percent.

Federal and provincial policymakers should pay special attention to effective tax rates when considering changes to the tax-and-transfer system, and adopt an integrated approach to the multitude of income testing fiscal benefits. High PTRs at low incomes generally arise when tax filers receive generous government income support from multiple sources, which improves their individual well-being. Having a high PTR, therefore, does not necessarily imply that the tax system overall is being unfair to you.

The main reason for studying PTRs is their effect on individuals' incentives to earn income, and thus on the incentives to improve their well-being through taking on paid employment. The tax-and-transfer system should not discourage parents from working.

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