



**Topic:** The Tax Gross up Formula  
**Opinion by:** Justice Doug Campbell  
**Date:** January 23, 2015  
**See Also:** Issue #'s 4, 5, 5A & 6

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*This memorandum was prepared by Justice Doug Campbell in reply to the request of ACJ O'Neil as outlined in his Notice to the Bar dated November 6, 2014. It represents Justice Campbell's personal viewpoint and may or may not require some adjustment to conform to the preferences or practices of individual Judges. That will be left up to the Judge and the lawyer, if any, involved. Readers who make use of the within material do so therefore at their own discretion and subject to their own judgment.*

**Formulation:** 1) Family lawyers often need to “gross up” a relevant amount as if it were taxable/ tax deductible.

2) Confusion about the difference between “Adding on” for tax and “Grossing up” for tax results in a common Mathematical mistake that is sometimes serious.

3) Even when a readily available software program does the Math, Lawyers need to understand the Math in order to react to error or to verify that Math.

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**Context:** The mentioned need occurs in an abundance of situations and the following examples are but a few of them. They are offered only to illustrate the technique; Examples:

- 1) When a child support Payor has tax-free income which must be grossed up to comply with section 19 of the Guidelines;
- 2) When the Court or a Litigant wishes to add taxable spousal support to tax-free child-support (in order to make an “apples to apples” analysis) to consider the affordability of the combined award; There are many other situations when a “gross-up” calculation is needed.

Reference to the Combined Federal/Provincial Marginal Rate Chart mentioned in previous issues will provide the approximate tax rate but a **mathematical error** is typically made by using an **"add-on" approach** instead of appropriately **"grossing up"** the amount for tax.

### The Common Mistake Illustrated:

Example: The child-support Payor has tax-free income of \$30,000. It may need to be grossed up (see Sec. 19 (b) & (c) of the Guidelines) in order to properly apply the Child Support Tables. *(Aside: Note the use of the word "Guidelines" and then "Tables" as opposed to the common mis-use of the word "Guidelines" when referring to the Tables... sorry, I digressed).*

The 2015 Marginal Rate Chart shows that this income attracts a marginal rate of 33.5% tax. (Assume for simplicity that the gross-up would not bring the income to another higher marginal rate; ie, that 33.5% tax applies to all the dollars involved – which is the case in this example).

**A mistake** is made when the tax-free income of \$30,000 is multiplied by the Marginal rate of 33.5% to suggest tax of \$10,050:

\$30,000	(tax free income)
<u>\$10,050</u>	(tax: $30,000 \times 33.5 = \$10,050$ )
\$40,050	(erroneously grossed up income)

**This is wrong because the appropriate tax at 33.5% must be applied to the grossed up figure, not to the \$30,000 Tax Free figure.**

Proof:  $\$40,050 \times 33.5\% = \$13,417$  Tax

\$40,050	(grossed up income)
<u>-\$13,417</u>	(tax)
\$26,633	(after tax income) <i>which is wrong because it should be \$30,000.</i>

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### The Correct Method Illustrated:

$100\% - 33.5\%$  (tax) = 66.5% (the payor's after tax cost, which I call "the **reciprocal** of his tax rate").

\$30,000 **divided by** 66.5% (**not multiplied by 33.5%**) = \$ 45,113 (the true grossed-up amount)

The Proof :  $\$45,113 \times 33.5\%$  or .335 ( marginal tax rate) = \$15,113 (Tax)

\$45,113	(grossed-up Income)
<u>-\$15,113</u>	(Tax)
\$30,000	(after Tax Income)

<p><b>So the correct formula is:</b> The grossed up equivalent income equals the tax-free income <b>divided by</b> the reciprocal of the tax rate.</p>
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**Suggestion:** Always work backwards from the calculated grossed-up amount to check your math; ie. the grossed up amount less the tax at the appropriate Marginal Rate must equal the tax free amount, as is the case above.

**Caution:** Please also note that a more complicated example would occur when the "gross-up" straddles more than one tax bracket in which case the rate, and therefore its reciprocal, would need to be a weighted average of the 2 Rates.

But that complication is for another day.

**The Message:** Appreciate the error in "adding on" tax instead of "grossing up".

Below is the 2015 marginal rate chart reproduced from Practice Tips Issue # 5 A :

**Nova Scotia 2015 Combined Federal / Provincial Marginal Tax Rates**

Prepared November 28, 2014

by Doug Campbell

(using 2015 Estimates of brackets and rates)

Taxable Income Above	Basic Tax	Tax on Next	Marginal Rate
11,327	0	18,263	25.00%
29,590	4,066	29,590	33.50%
59,180	13,979	30,221	38.67%
89,401	25,665	49,185	43.10%
138,586	46,864	11,414	46.50%
150,000	52,172	remainder	50.00%

Attached is a worksheet that can be used to calculate the "Grossed-Up" Income. A keeper for your tool kit, perhaps!

### Gross-up Worksheet for Tax-Free Incomes

Tax Free Income Amount	\$ .....
Divide by Reciprocal of the Marginal Tax Rate	÷ (A) ..... %
[100% - ..... = (A).....%]	
Equals : Grossed Up Equivalent Income	\$ _____

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### Example:

### Gross-up Worksheet for Tax-Free Incomes

Tax Free Income Amount, say	\$35,000
Divide by the Reciprocal of the Marginal Tax Rate	÷ .665 (ie 66.5%)
[100% - 33.5% = 66.5%]	
Equals : Grossed Up Equivalent Income	<u>\$ 52,632</u>

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