Tax Problem and Solution with One Slope Formula for Minnesota

Summary: One simple slope formula can be used to resolve MN income tax, homestead tax credit refund, working family credit, and corporate tax problems. Existing 4 (up to 11) income tax brackets, 96 withholding formulas (4×4×8), 16 taxable income ranges, 8-page Tax Table, and 18-page Withholding Tables can be matched and simplified with 15 benefits to save $165 million (Table 6*).

* Research paper: www.scitcentral.com/documents/be5648da4795008d9893b752b9226c8f.pdf
https://taxsimplecenter.net/statetaxsimplification.html

1. Multi-Bracket Personal Income Tax Systems and Solution

MN Tax Calculation System:
4 tax brackets at 5.35%, 6.8%, 7.85% & 9.85% (up to 11 brackets),
96 withholding formulas (4×4×8), 16 taxable income ranges,
18-page Withholding Tables and 6-page Tax Table

5.35% is reduced to 5.3%

Tax rate (Top tax rate: T=9.85%)
Over $120K**:
Same formula
Same tax rates
T - D×S÷YTI
$120K (6.4%)

Long-Term Solution: Two Formulas (Neutral tax revenue)
(To simplify MN tax systems and save hundred million dollars)
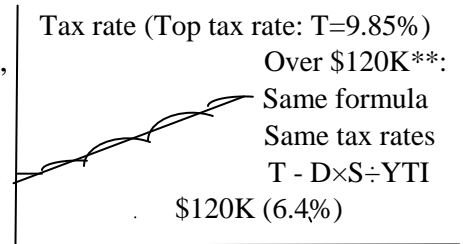
Taxable income

2. MN has Homestead Credit Refund (HCR) for homeowners and renters with 30 brackets, which has many brackets and cliff problem. For homeowner's household income (HI), there are percentages 1%-2.5%: $0-1,699 is at 1.0% (maximum refund $3,000), …more brackets …., $80,820-85,359 is at 2.0% (max refund $1,600), … more brackets …., and $106,600-110,739 is at 2.5%. There is no credit if the household income is $110,740 or more.
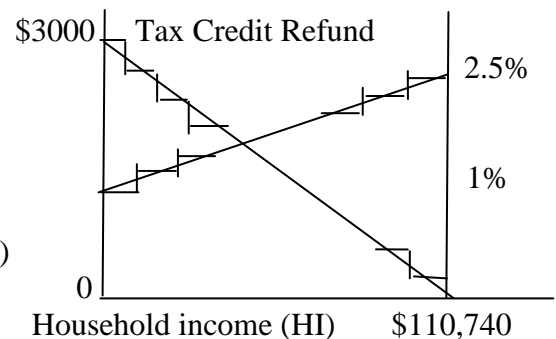
One slope formula for HCR and another one for
maximum refund can be designed to match simply.
The 30 brackets are simplified to 1 (**96% reduction**).

$3000 Tax Credit Refund
2.5%
1%
0

Two Formulas:
HCR = (0.01+HI÷7,382,667) × HI or
Maximum Refund = 3,000-HI÷36.9133 (Which one is less)
(Neutral tax revenue change)

Household income (HI) $110,740

3. Working Family Credit (WFC) and Simplification
MN has Working Family Credit with 5 pages and 4,000 WFC numbers, which can be simplified.

MN Working Family Credit Simplification (S1=6,000 for Married Filing Jointly or S1=0 for all others)

Child#	Line 1 or 3 of Schedule range	Line 1 or 3 MIWFC	Working Family Credit (WFC) rate of L (Line 1/3) by linear formula	Rate Range check	WFC = L*Rate
0	0 – (23,000+S1)		0.03 (1-L÷ (23,000+S1))	0.03 - 0	
1	0 – (42,000+S1)		0.12 (1-L÷ (42,000+S1))	0.12 - 0	
2	0 – (48,000+S1)		0.135 (1-L÷ (48,000+S1))	0.135 - 0	
≥3	0 – (52,000+S1)		0.15 (1-L÷ (52,000+S1))	0.15 - 0	

For more information, contact us at johnlee@taxsimplecenter.net or 913-710-0957

1. Bill Draft for Individual Income Tax Simplification:

For all individuals regardless of filing status, the tax shall be computed with the following formula:

If the yearly taxable income (YTI) is:	The tax rate and tax are:	2021 Tax range check:
Not over $120,000×S..	(YTI÷S÷C + B) × TI	5.35% - 6.4%
Over $120,000×S...	(T - (D×S÷YTI)) × TI	6.4% - 9.85%

Where: B = bottom tax rate = 0.0535 (5.35%) in 2021.

C = 11,428,571 from 120,000 to divide the 1st tax rate range difference (0.064-0.0535) or 10,909,091 from 120,000 ÷ (0.064-0.053) for neutral tax revenue change.

D = 4,140 from 120,000 to multiply the 2-nd tax rate range difference (0.0985- 0.064).

F = the number of filing periods (52, 26, 24, 12, 4, 2, 1 or 364 for weekly, bi-weekly, semi-monthly, monthly, quarterly, semi-annual, annual or daily filing periods).

S = status number (2 for Married filing jointly or qualifying widow(er), 1 for Married filing separately, 1.2 for Single or 1.5 for Head of Household).

Tax rate ranges = 5.35% to 6.4% for YTI ÷ S not over $120,000 and 6.4% to 9.85% for over $120,000 in 2021.

T = top tax rate = 0.0985 (9.85%) in 2021.

TI = taxable income.

YTI = yearly taxable income = TI × F.

(** For over $120,000×S, the same tax formula is converted into tax rate and tax format.)

2. Bill Draft for Homestead Credit Refund (HCR) Simplification:

If the homeowner's household income (HI) is less than $110,740, 1%-2.5% of homeowner' household income is allowed as homestead credit refund. Its maximum refund $3,000, which is reduced when the household income (HI) is increased. The homestead credit refund shall be computed with the following two formulas and which one is less:

If the household income (HI) is:	The credit refund is:	The maximum credit refund is:
Not over $110,740..............................	(HI÷7,382,667 +0.01) × HI	(1 - HI÷110,740) × 3,000
Over $110,740..................................	No deduction and enter 0	No deduction and enter 0

3. Bill Draft for Working Family Credit (WFC) Simplification:

The working family credits rate and credit shall be computed with the following formula. There are two filing status (S1). For Married Filing Jointly: S1=6,000 or Other Than Married Filing Jointly: S1=0.

Child #	If the Line 1 or 3 (L) of M1WFC is:	The credit rate and credit are:
0	Not over $23,000+S1.....,,,,,,,,,,,,,,,,,,,,,,,,,,,…….......	(1 - L÷(23,000+S1)) × 0.03 × L
	Over $23,000+S1...	No deduction and enter 0
1	Not over $42,000+S1.....,,,,,,,,,,,,,,,,,,,,,,,,,,,…….......	(1 - L÷(42,000+S1)) × 0.12× L
	Over $42,000+S1...	No deduction and enter 0
2	Not over $48,000+S1.....,,,,,,,,,,,,,,,,,,,,,………..........	(1 - L÷(48,000+S1)) × 0.135 × L
	Over $48,000+S1...	No deduction and enter 0
3 or more	Not over $52,000+S1.....,,,,,,,,,,,,,,,,,,,,,,,,,,,…….......	(1 - L÷(52,000+S1)) × 0.15 × L
	Over $52,000+S1...	No deduction and enter 0

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