## Tax Problem and Solution with One Slope Formula for Missouri

Summary: One simple slope formula can be used to resolve MO income tax, MO Federal Tax Percentage (cliff), property tax credit, social security (SS) tax, and corporate tax problems. Existing tax calculation system with 9 tax brackets, 54 withholding formulas ( $9 \times 6$ ), 10-page Withholding Tables can be matched and simplified with 15 benefits to save hundred millions of dollars (Table 6*).

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


## 1. Multi-bracket Personal Income Tax Systems and Solution MO Tax Calculation System: <br> 9 tax brackets at $1.5 \%, \ldots . .5 .4 \%$ (or $5.3 \%$ ) <br> 54 withholding formulas ( $9 \times 6$ ) <br> 10-page Withholding Tables

( $\sim 1$ million gain $w / 1.5 \%$ or $\sim 0 \mathrm{w} / 1.4 \%$ )

## Long-Term Solution: Two formulas

(To simplify MO tax systems and save hundred millions of dollars)

## Bill Draft for Individual Income Tax Simplification:

For all individuals, the tax shall be computed with the following formula:
If the yearly taxable income ( $\mathrm{TI} \times \mathrm{F}$ ) is:
The tax rate and tax are:
Not over \$9,000. $\qquad$ $(\mathrm{TI} \times \mathrm{F} \div \mathrm{C}+0.015) \times \mathrm{TI}$
Over \$9,000. $\qquad$ $(\mathrm{T}-(\mathrm{D} \div \mathrm{TI} \div \mathrm{F})) \times \mathrm{TI}$
Where: $\mathrm{C}=513,640$ from 9,000 to divide the 1st tax rate range difference $(0.032522-0.015$ ) in 2022 (or 485,909 from 9,000 to divide ( $0.032522-0.014$ ) for neutral tax revenue).
$\mathrm{D}=184.3$ from 9,000 to multiply the 2 nd tax rate range difference $(0.053-0.032522)$ in 2022.
$\mathrm{F}=$ 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).
Tax rate ranges $=1.5 \%$ to $3.2522 \%$ for yearly taxable income not over $\$ 9,000$ and $3.2522 \%$ to $5.3 \%$ for over $\$ 9,000$ in $2022(1.5 \%-3.322 \%-5.4 \%$ in 2021, $1.5 \%-3.35 \%-5.4 \%$ in $2020,1.5 \%-3.39 \%-5.4 \%$ in 2019 , $1.5 \%-3.44 \%-5.9 \%$ in $2018,1.5 \%-3.46 \%-6 \%$ in 2017 or $1.5 \%-3.5 \%-6 \%$ in 2016).
$\mathrm{T}=$ top tax rate $=0.053(5.3 \%)$ in 2022 (or $5.4 \%$ in $2021, \ldots ., 6.0 \%$ in 2016).
$\mathrm{TI}=$ taxable income.
$\mathrm{TI} \times \mathrm{F}=$ yearly taxable income
(** For over $\$ 9,000$, the same tax formula is converted from tax format into tax rate and tax format.)
Examples:
Tax rate and tax are:

1. YTI is $\$ 8,500$ in 2021: $\quad(\mathrm{YTI} \div \mathrm{C}+0.015) \times \mathrm{TI}=(8,500 \div 493,963+0.015) \times 8,500=0.032208 \times 8,500=273.77$
2. YTI is $\$ 22,450$ in 2021 : $(0.054-\mathrm{D} \div \mathrm{YTI}) \times \mathrm{TI}=(0.054-187 \div 22,450) \times 22,450=0.04567 \times 22,450=1,025.30$
3. Biweekly TI is $\$ 2,089$ in 2022: $\quad(0.053-184.3 \div(2,089 \times 26)) \times 2,089=0.049607 \times 2,089=103.63$
4. Monthly TI is $\$ 4,527$ in 2022: $\quad(0.053-184.3 \div(4,527 \times 12)) \times 4,527=0.049607 \times 4,527=224.57$

## 2. MO Federal Tax Percentage Cliff Problem

Existing Federal Tax Percentage (FTP) has 5 step rates at 35\%, 25\%, 15\% $5 \%$, and 0 . When AGI is changed from $\$ 100,000$ to $\$ 100,001$ with federal tax such as $\$ 15,000$, MO federal tax deduction is from $\$ 2,250(15 \% \times 15,000)$ to $\$ 750(5 \% \times 15,000)$. The $\mathbf{\$ 1}$ causes $\mathbf{\$ 1 , 5 0 0}$ difference unfairly.

Solution: One Slope Formula (Neutral tax revenue)
$(1-\mathrm{AGI} \div 125,000) \times 0.35$


Cycle Problem: Federal tax returns with itemized deductions (w/MO taxes) and MO tax returns with FTP are depended each other and have cycle calculations (problem).

## Bill Draft for Federal Tax Percentage:

Federal tax percentage shall be reduced gradually from $35 \%$ for the adjustable gross income (AGI) at 0 to $0 \%$ at or more than $\$ 125,000$ with one formula of $(1-\mathrm{AGI} \div 125,000) \times 0.35$.

## 3. Property Tax Credit Rate ( 55 brackets are reduced to 3)

MO Property Tax Credit Chart shows its reduction from $100 \%$ (or L13) to 0 when Line 10 is from 0 to $\$ 30,000$. Maximum tax credit (L13: Total Real Estate Tax Paid) is $\$ 1,100$.

One slope solution can be used to match related tax credit rates between $100 \%$ and 0 gradually from 53 brackets to 1 with $98 \%$ reduction.

MO Property Tax Credit Rate

| Line 10 | $0-14,000$ | $14,000-30,000$ | Over 30,000 |
| :--- | :---: | :---: | :---: |
| Credit rate | 1 | 1 -(L10-14,000) $\div 16,000$ | 0 |

There is neutral tax revenue change.


## Bill Draft for Property Tax Credit Simplification:

The property tax credit rate shall be reduced gradually from $100 \%$ for the Line 10 at or less than $\$ 14,000$ to $0 \%$ at or more than $\$ 30,000$ with one formula of $(1-(\operatorname{Line} 10-14,000) \div 16,000)$. The deduction is: $(1-$ (Line $10-14,000) \div 16,000$ ) $\times$ L13. Form MO-PTS is used. Maximum refund for Total Real Estate Tax Paid (Line 13) is not to exceed $\$ 1,100$.

## 4. MO Social Security Benefit Simplification:

Missouri has the social security benefit (SSB) tax for SS benefit rate change from 1 ( $100 \%$ ) to 0 for AGI over $\$ 100,000$ (for Married Filing Combined) or $\$ 85,000$ (for All Other Statuses).

When AGI- $\$ 100 \mathrm{~K} / 85 \mathrm{~K} \geq \mathrm{SSB}$, Enter 0 . There is no deduction.
When AGI- $\$ 100 \mathrm{~K} / 85 \mathrm{~K} \leq \mathrm{SSB}$, there is $0-100 \%$ deduction.
Slope formula is suggested from $100 \%$ to 0 gradually.
https://dor.mo.gov/forms/MO-A_2021.pdf
Solution: One slope deduction formula
(1) For Married Filing Combined: (1-(AGI-100,000) $\div$ SSB $) \times$ SSB
(2) For All Other Statuses: $(1-(A G I-85,000) \div$ SSB $) \times$ SSB


## Bill Draft for Social Security Income Deduction:

Social security benefit (SSB) deduction rate shall be reduced gradually from $100 \%$ for the adjustable gross income (AGI): (1) at or less than $\$ 100,000$ to $0 \%$ at or more than $100,000+$ SSB with one slope formula of ( 1 -(AGI-100,000) $\div$ SSB) $\times$ SSB for Married Filing Combined (joint federal) or (2) at or less than $\$ 85,000$ to $0 \%$ at or more than $85,000+$ SSB with one formula of $(1-(A G I-85,000) \div \mathrm{SSB}) \times$ SSB for All Other Statuses.

## 5. MO Corporation Tax Modification

Existing MO corporate tax rate is $4 \%$, which is reduced from prior $6.25 \%$. AR has corporate tax rate range $1 \%-6.5 \%$. A flat tax rate (such as $4 \%$ ) is too simple and unreasonable for small and large businesses. A lower bottom tax rate may encourage more small businesses for economical
development. When businesses grow with more stable incomes and profits, these businesses can afford to pay more taxes with more social responsibilities, which are similar as personal income taxes with a tax rate range such as MO personal income tax rate range is from $1.5 \%$ to $5.3 \%$ in 2022.

There may be two options for corporate tax rate ranges. One is to have such as $2.5 \%-3.5 \%-4.5 \%$ with two brackets for taxable incomes not over and over such as $\$ 30,000$ (or $\$ 2,500 /$ month), which is shown in Table 1. Another is to have the same tax rates as personal income tax rates fairly. Many small businesses (sole, S corporation and partnership) treat business incomes as partial personal incomes and file business incomes into their personal income tax returns. Their fair tax rates are at the same tax rates in personal income tax returns. Two tax brackets are suggested (Table 2). Their fiscal notes and budget balance are needed.

Table 1 MO Corporate Tax at Tax Rate Range 2.5\%-3.5\%-4.5\%

| Yearly Taxable <br> Income (ATI) | YTI Range | Taxable <br> Income (TI) | LG Tax Rate and Tax <br> Formula | Tax Rate <br> Check | Tax Rate | Tax <br> TI $\times$ Tax Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $0-30,000$ |  | $(\mathrm{TI} \times \mathrm{F}+\mathrm{C}+0.025) \times \mathrm{TI}$ | $0.025-0.035$ |  |  |
|  | Over 30,000 |  | $(0.045-\mathrm{D} \div \mathrm{TI} \div \mathrm{F}) \times \mathrm{TI}$ | $0.035-0.045$ |  |  |

$\mathrm{C}=3,000,000$ from 30,000 to divide the 1st tax rate range difference (0.025-0.015).
$\mathrm{D}=300$ from 30,000 to multiply the 2nd tax rate range difference (0.045-0.035).
$\mathrm{F}=$ the number of filing periods (52, 26, 24, 12, 4, 2, 1 or 364 for weekly, bi-weekly, semi-monthly, monthly, quarterly, semi-yearly, yearly or daily filing periods).
Tax rate ranges $=2.5 \%-3.5 \%-4.5 \%$ for yearly taxable income not over and over $\$ 30,000$.
$\mathrm{TI} \times \mathrm{F}=$ yearly taxable income
Table 2 MO Corporate Tax (Same as Personal Tax System)

| Yearly Taxable <br> Income (ATI) | YTI Range | Taxable <br> Income (TI) | LG Tax Rate and Tax <br> Formula | Tax Rate Check | Tax <br> Rate | Tax <br> TI $\times$ Tax Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $0-9,000$ |  | $(\mathrm{TI} \times \mathrm{F}+\mathrm{C}+0.015) \times \mathrm{TI}$ | $0.015-0.032522$ |  |  |
|  | Over 9,000 |  | $(0.053-\mathrm{D} \div \mathrm{TI} \div \mathrm{F}) \times \mathrm{TI}$ | $0.032522-0.053$ |  |  |

C $=513,640$ from 9,000 to divide the 1 st tax rate range difference $(0.032522-0.015)$ in 2022.
$\mathrm{D}=184.3$ from 9,000 to multiply the 2nd tax rate range difference ( $0.053-0.032522$ ) in 2022.
$\mathrm{F}=$ the number of filing periods (52, 26, 24, 12, 4, 2, 1 or 364 for weekly, bi-weekly, semi-monthly, monthly, quarterly, semi-yearly, yearly or daily filing periods).
Tax rate ranges $=1.5 \%-3.2522 \%-5.3 \%$ for yearly taxable income not over and over $\$ 9,000$ in 2022
$\mathrm{TI} \times \mathrm{F}=$ yearly taxable income

## 6. Tax Simplification

Tax simplification without complex withholding formulas and tables is good for businesses, DOR and taxpayers. Businesses use standard deductions, exemptions and tax credits for withholding taxes. Taxpayers use actual adjustments, deductions, exemptions, tax credits (non-refundable and refundable), and other taxes for tax returns. Adjustments include income additions and subtractions. A general withholding or income tax calculation is:

Withholding/Income Tax $=($ Incomes $\pm$ Adjustments - (Deductions+Exemptions) $\div \mathrm{F}) \times$ Tax rate - Tax credits $\div \mathrm{F}$

