## OHIO BILL NO.

## Individual income tax simplification

Summary: One simple linear formula and one existing formula are used to match OH tax systems fairly and efficiently for replacing existing 5/8 tax brackets, (Problem \#1: too many brackets), 48 ( $6 \times 8$ ) withholding formulas (Problem \#2: too many formulas), and 11-page Withholding Tables (Problem \#3: too many pages and too complex).

1. AN ACT concerning income taxation; relating to tax rates and repealing the existing section.
2. A tax is hereby imposed upon taxable income of every resident individual, which tax rate
3. and tax shall be computed in accordance with the following Tax Rate Schedule:
4. https://tax.ohio.gov/individual/resources/annual-tax-rates
5. If yearly taxable income (YTI) is: The tax are:
6. Not over $\$ 26,050$ 0.00\%
7. Over $\$ 26,050$ but not over $\$ 46,100 \quad 360.69$ plus 2.765 (YTI 26,050)
8. Over $\$ 46,100$ but not over $\$ 92,150 \quad 915.07$ plus 3.226 (YTI-46,100)
9. Over $\$ 92,150$ but 2,400.64 plus 3.688 (YTI 92,150)
10. Over $\$ 115,300$ 3,254.41 plus 3.99\% (YTI -115,300)
11. 
12. The above formulas and related tables can be matched and simplified.
13. For the yearly taxable income (YTI) is: The tax rate and tax are: 2022 Tax rate range:
14. Not over $\$ 120,000$
( $\mathrm{YTI} \div \mathrm{C}+\mathrm{B}$ ) $\times \mathrm{TI}$ 0\% - 2.87\%
15. Over $\$ 120,000$
(T-(D $\div \mathrm{YTI}) \times \mathrm{TI}$
2.87\%-3.99\%
16. 
17. YTI is the yearly taxable wage. B is bottom tax rate $0 \%$. T is top tax rate $3.99 \%$.
18. C is $4,181,185$ from 120,000 to divide ( $\div$ ) the 1 -st tax rate range difference ( $0.0287-0$ ). D is 1,344
19. from 120,000 to multiply $(x)$ the 2 -nd tax rate difference ( $0.0399-0.0287$ ). Bottom tax rate, top tax rate,
20. and tax rate at $\$ 120,000$ can be reformed.
21. $\mathrm{YTW}=\mathrm{TW} \times \mathrm{F}$, TW is taxable wage and F is filing period ( $1,2,4,12,24,26,52$ or 365 on yearly,
22. semi-yearly, quarterly, monthly, semi-monthly, bi-weekly, weekly or daily basis).

## Examples:

1. YTI is $\$ 45,678$ :
2. YTI is 150,000 :
3. Monthly TI is $\$ 12,500$ :
4. Bi-weekly TI is $\$ 1,756$ :

## Tax rate and tax are:

$(45,678 \div 4,181,185) \times 45,678=0.010925 \times 45,678=499.02$
$(0.0399-1,344 \div 150,000) \times 150,000=0.03094 \times 150,000=4,641.00$
$(0.0399-1,344 \div 12,500 \div 12) \times 12,500=0.03094 \times 12,500=386.75$
$(1,756 \times 26 \div 4,181,185) \times 1,756=0.010919 \times 1,756=19.17$

## Notes:

1. With this simplification, the existing 5 tax brackets $(0 \%, 2.765 \%, 3.226 \%, 3.688 \%$, and $3.99 \%), 48$ ( $6 \times 8$ ) withholding formulas, and 11-page Withholding Tables can be matched and simplified by 2 formulas and brackets ( $0 \%-2.87 \%-3.99 \%$ ) fairly $\left(^{*}\right)$ with $96 \%$ reduction ( $1-2 \div 48$ )).
(*) Fair tax rate changes: www.scitcentral.com/documents/be5648da4795008d9893b752b9226c8f.pdf
(3. Tax Rate Change Speed, Checking Tool, Tax Status and Simplification)
https://tax.ohio.gov/static/employer_withholding/2020\ Tables/WTH_OptionalComputerFormula_2020.pdf https://tax.ohio.gov/static/employer withholding/2020\%20Tables/WTH PercentageMethod 2020.pdf
https://tax.ohio.gov/static/employer_withholding/2020\ Tables/WTH_Monthly\ Rate_2020.pdf https://tax.ohio.gov/individual/resources/annual-tax-rates
https://tax.ohio.gov/business/ohio-business-taxes/employer-withholding/employer-withholding-tables-010120
2. Standard deductions, exemptions, and tax credits are used for withholding tax calculations. $\mathrm{F}=1$ is for tax returns. Actual deductions, exemptions, and tax credits are used for tax returns.

$$
\text { Total Tax }=\text { Sum }(\text { YTIc } \div \mathrm{C} \div \mathrm{S}+0.0475) \text { YTIc }+ \text { Sum ( } 0.099 \text { YTId }-(\mathrm{D} \times \mathrm{S}))
$$

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

1. https://tax.ohio.gov/static/employer_withholding/2020\ Tables/WTH_PercentageMethod_2020.pdf
2. A tax on the brackets of taxable income as follows:
3. Yearly Gross Wage Minus $\$ 650$ for Each Exemption Claimed Equats
4. Taxable Wage Withholding Deduction
5. $0 \quad 5,000 \quad 0.516 \%$ of such amount
6. $5,000-10,000 \quad 25.8$ plus $1.032 \%$ of excess over $\$ 5,000$
7. 10,000-15,000 77.4 plus $2.067 \%$ of excess over $\$ 10,000$
8. 15,000-20,000 180.72 plus $2.582 \%$ of excess over $\$ 15,000$
9. $20,000-40,000 \quad 309.84$ plus $3.099 \%$ of excess over $\$ 20,000$
10. $40,000-80,0000 \quad 928.8$ plus $3.614 \%$ of excess over $\$ 40,000$
11. $80,000-100,000 \quad 2,375.28$ plus $4.132 \%$ of excess over $\$ 80,000$
12. Over 100,000 3,200 plus $5.164 \%$ of excess over $\$ 100,000$
13. 
14. The above formulas and related tables can be matched and simplified.
15. For the yearly taxable wage (YTW) is: The tax rate and tax are:
16. Not over $\$ 100,000$
$(\mathrm{YTW} \div \mathrm{C} \div \mathrm{S}+\mathrm{B}) \times \mathrm{TW}$
$(\mathrm{T}-(\mathrm{D} \times \mathrm{S} \div \mathrm{YTW})) \times \mathrm{TW}$
2020 Tax rate range:
17. Over $\$ 100,000$
0.516\%-3.2\%
3.2\%-5.164\%
18. 
19. C is $3,725,782$ from 100,000 to divide ( $\div$ ) the 1 -st tax rate range difference ( $0.032-0.00516$ ). D is 1,964
20. from 100,000 to multiply $(\times)$ the 2 -nd tax rate difference ( $0.05164-0.032$ ). Bottom tax rate, top tax rate,
21. and tax rate at $\$ 100,000$ can be reformed.
22. $\mathrm{YTW}=\mathrm{TW} \times \mathrm{F}$, TW is taxable wage and F is filing period $(1,2,4,12,24,26,52$ or 365 on yearly,
23. semi-yearly, quarterly, monthly, semi-monthly, bi-weekly, weekly or daily basis).
24. OH Tax Table or its one formula can be as one option for taxable incomes not over $\$ 100,000$.
25. For over $\$ 120,000$, existing tax formula format is converted to tax rate and tax formula format.

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3,254.41+3.99 \%(\mathrm{YTI}-115,300)=(0.0399-1,346.06 \div \mathrm{YTI}) \times \mathrm{YTI} \text { into }(0.0399-(1,344 \div \mathrm{YTI})) \times \mathrm{TI}
$$

5. The $\$ 26,050 \times$ S for $0 \%$ may be combined into Standard Deductions for its simplification. S is tax filing status ( 1 for Married Filing Separate, 2 for Married Filing joint, 1.5 for Head of Household or 1 for Single.
6. With this simplification, the above bottom tax rate $0.516 \%$ may be reduced to such as $0.5 \%-3.2 \%-5.2 \%$ for not over and over $\$ 100,000$ (yearly taxable wage) simply with neutral tax revenue. C is $3,725,782$ from $100,000 \div(0.032-0.005)$. D is 2,000 from $100,000 \times(0.052-0.032)$.

Another option is to eliminate the tax calculations with taxable wages. Taxable incomes are used to calculate tax rates and taxes simply and directly. Its tax rate ranges of $0 \%-2.87 \%-3.99 \%$ are used as a tool to check tax rates to reduce calculation mistakes.
7. For existing tax reforms, tax brackets, tax rates, taxable income ranges, tax computations, and tax goal are considered at the same time, which are affected each other and complex. With this tax simplification, only 3 tax rates at bottom, middle, and top are adjusted to meet a tax goal. The factors are explained by our 2021 research paper * (Page 508).

## Bill Summary

Bill xxx - This bill use two formulas to match and simplify existing $5 / 8$ tax brackets, 48 ( $6 \times 8$ ) withholding formulas, and 11-page Withholding Tables with 1 linear formula and 1 existing formula in 2 brackets. Withholding taxes, payrolls, withholding reports, income taxes, tax returns, tax analyses, fiscal notes, tax projections, and tax reforms can be simplified. A checking tool is provided to check and reduce calculation mistakes. For future tax reforms, only 3 tax rates at bottom, $\$ 120,000$, and top are adjusted to meet a tax goal.

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