## Tax Problem and Solution for California with Slope Formula

Summary: Many states have complex tax calculation systems with multi tax brackets such as CA has 9, AR has 12, MO has 9 (1-10), KS has 3 (up to 8 ), and MN has 4 (up to 11) tax brackets during the past $\mathbf{1 0 0}$ years. There are 45-216 withholding formulas*, xx-page withholding tables and x -xx page tax tables.

Two or one simple slope formula can be used for CA to match and replace existing tax system with complex formulas and tables fairly and efficiently and to save more than $\$ 500$ million (Table $6^{*}$ ).

* Research paper: www.scitcentral.com/documents/be5648da4795008d9893b752b9226c8f.pdf


## 1. Multi-bracket Personal Income Tax Systems and Solution

CA Tax Calculation System:
9 tax brackets at $1 \%, 2 \%, 4 \% \ldots \ldots .12 .3 \%$ (2020)
216 withholding formulas $(9 \times 3 \times 8)$
29-page Withholding Tables and 5-page Tax Table
(Neutral tax revenue)
Long-Term Solution: 3 or 2 Formulas
(2 or 1 simple slope formula and 1 existing formula)


Yearly Taxable Income (YTI)

## Bill Draft for Personal Individual Income Tax:

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: | Tax rate range: |
| :---: | :---: | :---: |
| Not over \$100,000×S | ( $\mathrm{YTI} \div \mathrm{A} \div \mathrm{S}+0.01$ ) $\times \mathrm{TI}$ | 0.01-0.0643 |
| \$100,000-\$500,000×S | . $(\mathrm{YTI} \div \mathrm{C} \div \mathrm{S}+0.0571) \times \mathrm{TI}$ | 0.0643-0.0931 |
| Over \$500,000×S | . $0.123-(\mathrm{D} \times \mathrm{S} \div \mathrm{YTI}) \times \mathrm{TI}$ | 0.0931-0.123 |

Where: $0.01(1 \%)$ is bottom tax rate and $0.123(12.3 \%)$ is top tax rate in 2020 , which can be reformed. $\mathrm{A}=1,841,621$ from 100,000 to divide the 1 -st tax rate range difference (0.0643-0.01) in 2020.
$\mathrm{C}=13,888,889$ from 400,000 to divide the 2-nd tax rate range difference (0.0931-0.0643) in 2020.
$\mathrm{D}=14,950$ from 500,000 to multiply the 3-rd tax rate range difference (0.123-0.0931) in 2020.
$\mathrm{F}=$ 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).
$\mathrm{S}=$ status \# (1 for Married filing separately or Single, 2 for Married filing jointly or qualifying widow(er) or 1.5 for Head.
Tax rate ranges are 0.01-0.0643-0.0931-0.123 for YTI ( $0-\$ 100,000-\$ 500,000-$ ) $\times$ S in 2020.
TI = taxable income.
$\mathrm{YTI}=$ yearly taxable income $=\mathrm{TI} \times \mathrm{F}$.
(** For over $\$ 500,000 \times \mathrm{S}$, the same tax formula is converted into tax rate and tax format.)
(Another option: 2 brackets and formulas at $1 \%-8.2 \%-12.3 \%$ for YTI not over and over $\$ 240,000 \times$ S)

## Examples:

## Tax rate and tax are:

1. $\mathrm{YTI}=\$ 72,000$ in 2020 : $(\mathrm{YTI} \div \mathrm{A} \div \mathrm{S}+0.01) \times \mathrm{TI}=(72,000 \div 1,841,621 \div 1+0.01) \times 72,000=0.0491 \times 72,000=3,534.91$
2. Monthly=\$6,000: $\quad(\mathrm{YTI} \div \mathrm{A} \div \mathrm{S}+0.01) \times \mathrm{TI}=(6,000 \times 12 \div 1,841,621 \div 1+0.01) \times 6,000=0.0491 \times 6,000=294.58$
3. Weekly $=\$ 21,662:(0.123-\mathrm{D} \times \mathrm{S} \div \mathrm{YTI}) \times \mathrm{TI}=(0.123-14,950 \times 2 \div 21,662 \div 52) \times 21,662=0.096456 \times 21,662=2,089.43$

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## 2. Young Child Tax Credit

CA maximum young child tax credit (YCTC) is $\$ 1,000$. It is depended on CA earned income (EI) from $100 \%$ at or less than $\$ 25,000,0 \%$ at or more than $\$ 30,000$ or changeable from $100 \%$ to $0 \%$ between $\$ 25,000$ and $\$ 30,000$. Part VII of Form 3514 is used for YCTC with multi (50) steps (each 100).

Smooth rates between $100 \%$ to 0 are needed. When EI values are increased from $\$ 25,000$ to $\$ 30,000$, the rate changes from 1 ( $100 \%$ ) to 0 gradually are suggested.

## Long-Term Solution: One formula

## Bill Draft for Young Child Tax Credit:



Young child tax credit (YCTC) rate shall be reduced gradually from $100 \%$ for CA earned income (EI) at or less than $\$ 25,000$ to $0 \%$ at or more than $\$ 30,000$ with one formula of ( $1-(\mathrm{EI}-25,000) \div 5,000$ ). The credit (YCTC) is to multiply the rate and $\$ 1,000$ : ( $1-(\mathrm{EI}-25,000) \div 5,000) \times 1,000$.

## 3. Earned Income Tax Credit Simplification

CA earned income tax credit (EITC) table has 2,960 EITC numbers and 600 EI ranges (2021), which can be simplified with 1 slope formula simply with N numbers for number of qualifying children. After $\$ 30,000$, there is no EITC.

## Bill Draft for Earned Income Tax Credit:

 Earned income tax credit (EITC) shall be reduced gradually for California earned income (EI) from 0 to $\$ 30,000$ with one formula of $(1-(\mathrm{EI} \div 30,000)) \times \mathrm{N} \times \mathrm{EI}$. N is $0.02,0.055,0.065$ or 0.075 for your number of qualifying children is $0,1,2$ or 3 respectively. When the earned income (EI) is more than $\$ 30,000$, earned income tax credit (EITC) is 0 .

| Qualifying child \# | $\mathbf{N}$ | Earned income (EI) | Formula | Rate check |
| :---: | :---: | :---: | :---: | :---: |
| 0 | 0.02 | $(1-(\mathrm{EI} \div 30,000)) \times 0.02 \times \mathrm{EI}$ | $0.02-0$ |  |
| 1 | 0.055 | $(1-(\mathrm{EI} \div 30,000)) \times 0.055 \times \mathrm{EI}$ | $0.055-0$ |  |
| 2 | 0.065 | $(1-(\mathrm{EI} \div 30,000)) \times 0.065 \times \mathrm{EI}$ | $0.065-0$ |  |
| 3 | 0.075 | $(1-(\mathrm{EI} \div 30,000)) \times 0.075 \times \mathrm{EI}$ | $0.075-0$ |  |

## 4. Tax Simplification

Tax simplification without complex withholding formulas ( 216 from $9 \times 3 \times 8$ ) and tables with different filing periods is good for businesses, DOR and taxpayers. The three tax rate and tax formulas are used. Businesses use standard deductions, exemptions and tax credits for withholding taxes. Taxpayers use actual adjustments, deductions, exemptions, tax credits, and other taxes for tax returns. Adjustments include income additions and subtractions. Tax credits include non-refundable and refundable tax credits. A general withholding or income tax calculation formula is:

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

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