

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

**Summary:** One simple slope formula can be used to resolve KS social security (SS) tax cliff, income tax, homestead property tax refund, and corporate tax problems. Existing 3 (up to 8) income tax brackets, 48 withholding formulas (2×3×8), 8-page Tax Table, and 22-page Withholding Tables can be matched and simplified with 15 benefits to save xx millions of dollars (Table 6\*).

\* Research paper: [www.scitcentral.com/documents/be5648da4795008d9893b752b9226c8f.pdf](http://www.scitcentral.com/documents/be5648da4795008d9893b752b9226c8f.pdf)  
<https://taxsimplecenter.net/statetaxsimplification.html>

### KS Social Security Tax Cliff Problem and Solution

Kansas has the social security income (SSI) tax cliff problem from 100% to 0% at Federal Adjusted Gross Income (AGI) subtraction at not over or over \$75,000. When two AGI values are around \$75,000 with few dollar differences, their SS tax difference may be \$1,000, which is unfair.

One simple slope formula in HB 2727 (2022) can be used to resolve the SS tax cliff problem. Then its rates are changed from 100% to 0% gradually and smoothly without the cliff problem. The bill has been approved by the Republic and Democratic lawmakers in House Taxation Committee.

[www.kslegislature.org/li/b2021\\_22/committees/ctte\\_h\\_tax\\_1/documents/testimony/20220314\\_02.pdf](http://www.kslegislature.org/li/b2021_22/committees/ctte_h_tax_1/documents/testimony/20220314_02.pdf)  
[www.kslegislature.org/li/b2021\\_22/measures/hb2727/](http://www.kslegislature.org/li/b2021_22/measures/hb2727/)

### KS Income Tax Simplification

Kansas has complex tax calculation systems with 3 (up to 8) tax brackets, 48 withholding formulas (2×3×8), 8-page Tax Table, and 22-page Withholding Tables, which can be matched and simplified with one simple slope (linear) formula. There are the 15 benefits for saving more than \$50 million (values) for KS businesses, DOR, and taxpayers. Lawmakers can also simplify tax reforms.

Tax Calculation Systems	Tax Brackets	Withholding Formulas	Withholding Tables	Tax Table	Tax Revenue Change	Saving for Businesses
Existing 3.1-5.7%	3 (up to 8)	48 (up to 128)	22 pages	8 pages	No change	No
Proposed 3-5.7%	2	2	0	Option or 4 pages	~No change	\$36.4 million

a. For not over \$50,000×S, one slope (linear) formula is used to replace existing tax calculation system.

$$\text{Tax} = (\text{ATI} \div S \div C + 0.03) \times \text{TI} = \text{Tax rate} \times \text{Taxable income (TI)} \quad (S=1 \text{ or } 2 \text{ and neutral tax revenue})$$

b. For over \$50,000×S, the existing formula is converted from tax format to tax rate and tax format.

(1) Existing "\$1,252.5 plus 5.7% of excess over \$30,000" = 1,252.5 + 0.057 (ATI - 30,000) = 0.057 ATI - 457.5  
 = (0.057 - 457.5 ÷ ATI) × ATI for S=1 (ATI=annual taxable income)

(2) Existing 2,505 + 0.057 (ATI - 60,000) = 0.057 ATI - 915 = (0.057 - 457.5 × 2 ÷ ATI) × ATI for S=2

Their combined formula is:  $\text{Tax} = (0.057 - 457.5 \times S \div \text{ATI}) \times \text{TI} = \text{Tax rate} \times \text{Taxable income (TI)}$

### **Benefit and Value:**

1. Kansas can use and keep the 2 simple formulas and brackets in HB 2572 (2022) without the struggles with different tax brackets (2-8) and withholding formulas (32-128) in the future.

2. KS businesses can use the 2 formulas and standard deductions and credits to replace the existing 48 formulas and 22-page Withholding Tables for withholding taxes to save \$36.4 million (if \$1(cost)×26×1.4 million).

3. The two sub tax systems for withholding taxes and tax returns can be combined together simply.

4. Lawmakers can adjust only 3 tax rates (at bottom, \$50,000 and top such as 3% -4.785% -5.7%) to replace the existing 3 factors with many options\* (\*2021 Research Paper) for tax reforms and projections simply.

..... \* [www.scitcentral.com/documents/be5648da4795008d9893b752b9226c8f.pdf](http://www.scitcentral.com/documents/be5648da4795008d9893b752b9226c8f.pdf) (Table 6) .....

15. KS DOR can use the 2 formulas instead of the 6-16 formulas to simplify tax calculation, fiscal note, analysis, and projection. Then more time can be used to inspect tax returns. DOR may estimate its saving.

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**Examples of Tax Problems and Solution with One Simple Slope Formula**

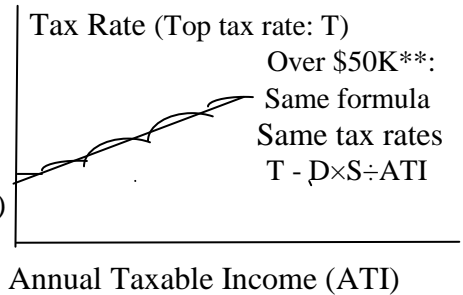


**1. Multi-Bracket Personal Income Tax Systems and Solution**

**KS Tax Calculation System:**

3 tax brackets at 3.1%, 5.25% and 5.7% (up to 8 brackets)  
 48 withholding formulas (2x3x8)  
 22-page Withholding Tables and 8-page Tax Table  
 (At \$50K, tax rate is 4.785%)

3.1% is reduced to 3%  
 (Neutral tax revenue)



**Long-Term Solution: Two Formulas**

(To simplify KS tax systems and save xx millions of dollars)

**Bill Draft for Personal Income Tax Simplification:**

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

If the annual taxable income (ATI) is:	The tax rate and tax are:
Not over \$50,000xS.....	$(ATI \div S \div C + 0.03) \times TI$
Over \$50,000xS.....	$(0.057 - (D \times S \div ATI)) \times TI$

Where: ATI = annual taxable income = TI x F.

C = 2,967,359 from 50,000 to divide the 1st tax rate range difference (0.04785-0.031) or 2,801,120 from 50,000 ÷ (0.04785-0.03) for neutral tax revenue.

D = 457.5 from 50,000 to multiply the 2nd tax rate range difference (0.057-0.04785).

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 individuals filing joint returns; or 1 for all other individuals).

Tax rate ranges = 3% to 4.785% for ATI ÷ S not over \$50,000 and 4.785% to 5.7% for over \$50,000.

TI = taxable income.

(\*\* For over \$50,000xS, the same tax formula is converted into tax rate and tax format.)

**Examples:**

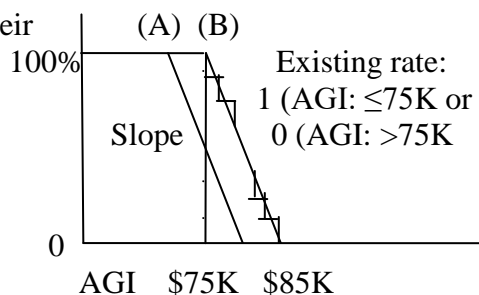
**Tax rate and tax are:**

- ATI=\$38,500:  $(ATI \div S \div C + 0.03) \times TI = (38,500 \div 1 \div 2,801,120 + 0.03) \times 38,500 = 0.0437445 \times 38,500 = 1,684.16$
- ATI is \$120,000:  $(0.057 - D \times S \div ATI) \times TI = (0.057 - 457.5 \times 2 \div 120,000) \times 120,000 = 0.049375 \times 120,000 = 5,925.00$
- Biweekly TI is \$1,481 (S=1):  $(1,481 \times 26 \div 1 \div 2,801,120 + 0.03) \times 1,481 = 0.0437466 \times 1,481 = 64.79$
- Monthly TI is \$10,000 (S=2):  $(0.057 - 457.5 \times 2 \div (10,000 \times 12)) \times 10,000 = 0.049375 \times 10,000 = 493.75$

**2. Flat Rates (KS Social Security Income Tax Cliff Problem and Solution)**

Kansas has the social security income (SSI) tax cliff problem for SS benefit rate change from 1 (100%) to 0 immediately (into Federal Adjusted Gross Income (AGI) subtraction) for AGI not over or over \$75,000.

When AGIs are changed from such as \$74,999 to \$75,991, their SS tax difference may be \$1,000, which is unfair. One slope (linear) formula is suggested from 100% to 0 gradually.



**Long-Term Solution: One formula**

- $(1 - (AGI - 75,000) \div 10,000) \times SSI$
- Other options: Starting-end point and 2 status effects

**Bill Draft for Resolving Social Security Income Tax Cliff Problem:**

**Option #A:** Social security income (SSI) deduction rate shall be reduced gradually from 100% for the adjustable gross income (AGI) at or less than \$70,000 to 0% at or more than \$80,000 with one formula of  $(1-(AGI-70,000)\div 10,000)$ . The deduction is:  $(1-(AGI-70,000)\div 10,000)\times SSI$ .

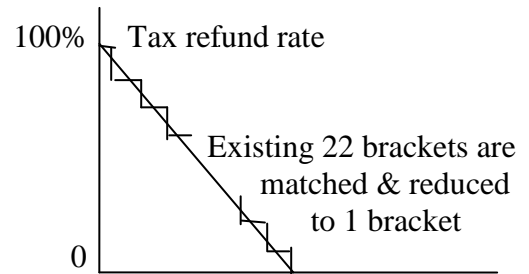
**Option #B:** One slope (linear) formula of  $(1-(AGI-75,000)\div 10,000)$  has been approved by Taxation Committee lawmakers (March 17, 2022). [www.kslegislature.org/li/b2021\\_22/measures/hb2727/](http://www.kslegislature.org/li/b2021_22/measures/hb2727/)

**3. Property Tax Credit/Refund Rate**

Form K-40H has 23 brackets for Homestead Property Tax Refund.

**K-40H:** For Line 10, % rates are: 100%, 96%, 92%, ... (17 brackets)..., 10%, 5% or 0% (>\$35,700) in 2019 or 0% (>\$35,001) in 2018

One slope (linear) method is used to match the tax refund rates between 100% and 0 gradually **with one bracket**. Then the 22 brackets are reduced to 1 (**95% reduction**).



<u>Homestead property tax refund rate simplification</u>		
Line 10	0 - \$36,000	Over \$36,000
Tax refund rate	$1-(L10\div 36,000)$	0

**Bill Draft for Homestead Refund Simplification:**

The homestead refund percentage shall be reduced gradually from 100% for the Line 10 of Form K-40H at 0 to 0% at or more than \$36,000 with one formula of  $(1-(Line\ 10\div 36,000))$ . The property tax refund is:  $(1-(Line\ 10\div 36,000))\times Line\ 13$ .

**4. KS Corporation Tax Modification**

Existing KS corporate tax rates are 4% at 0-\$50K and 7% for above \$50K non-smoothly. Tax rate is 5.5% at \$100K. KS bottom tax rate 4% is not competitive because MO has corporate tax rate at 4%, which was reduced from 6.25%. OK has also reduced corporate tax rate from 6% to 4%. The tax rate reduction also causes tax revenue reduction. AR has corporate tax rate range 1%-6.5% (6 tax brackets).

The existing 4% can be reduced to 3.5% or 3% without tax revenue reduction, which has smooth tax rate changes for KS. Its fiscal note is suggested. 3% (or 3.5%) is lower than MO and OK tax rates (4%). A lower bottom tax rate may encourage more small businesses for economical development. A flat tax rate (such as 4% or 6%) is too simple and unreasonable for small and large businesses.

**LG tax rate system for KS corporations**

Annual Taxable Income (ATI)	ATI Range	Taxable Income (TI)	LG Tax Rate and Tax Formula	Tax Rate Check	Tax Rate	Tax TI×Tax Rate
	0 - 100,000		$(TI\times F+C + 0.035)\times TI$	0.035-0.055		
	Over 100,000		$(0.07 - D\div TI\div F)\times TI$	0.055-0.07		

(F=filing period #, C=5,000,000 and D=1,500)

**5. 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, and other taxes for tax returns. Adjustments include income additions and subtractions. A general withholding or income tax calculation is:

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