

A First Step at Modeling Changes to Income Sensitivity

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Outline

- Considerations of modeling
- Modeling no income sensitivity in fiscal year 2025
- Modeling only the circuit breaker in fiscal year 2025
- Final notes



Considerations of Modeling



Review of the property tax credit under current law

- The homestead property tax has a credit based on income
- About two-thirds of Vermont households receive a property tax credit to their homestead property tax based on their income
- The credit is applied to the following year's tax bills
- The credit is limited by the taxpayers' income

| Household income | Property tax credit parameters |
|--------------------------------|--|
| Less than or equal to \$47,000 | <ul style="list-style-type: none">• Property tax credit may be used on the first \$400,000 of the housesite value• Additional tax relief based on household income is available |
| \$47,001 - \$90,000 | Property tax credit may be used on the first \$400,000 of the housesite value |
| \$90,001 - \$115,000* | Property tax credit may be used on the first \$225,000 of the housesite value |
| Greater than \$115,000* | Household will not qualify for a property tax credit |

**Note: The figure of \$115,000 is not included in statute and is calculated annually*



The Property Tax Credit (PTC) is an Education Fund Expenditure That Impacts Property Tax Rates and Liabilities

- Estimated to cost \$153 million in fiscal year 2025
- Direct cost to the Education Fund, meaning property tax rates must be raised to a level that covers its cost
- Total amount is based off the parameters under current law, the homestead and income yields for fiscal year 2025, and individual household circumstances



Estimating Changes to Liabilities From Changes to the Property Tax Credit is an Iterative Process

- Because the Education Fund is self leveling, multiple modeling exercises must be conducted to understand changes in liability
- This is an iterative process:
 - First, savings or costs of PTC changes must be estimated
 - *Then* property tax rates must be recalculated to adjust for these savings or costs
 - *Then* savings or costs must be re-estimated based on new rates
 - *Then* property tax rates must be re-recalculated to adjust for re-estimated savings or costs
 - *Then* savings or costs must be re-re-estimated based on re-recalculated rates
 - *And on and on...*



Modeling Assumptions

- Does not reflect a policy proposal
- Aims to explain results of PTC changes
- Modeling is complex and necessitates multiple assumptions to regarding mechanics and levers at play, including:
 - Including only those filers who qualified for a property tax credit in fiscal year 2025
 - Disregarding the PTC lag and assuming the PTC earned in fiscal year 2025 also applies to fiscal year 2025 bills
 - Assuming all else is held equal, unless otherwise noted



Modeling Filer Groups

- This analysis examines the households with an estimated household income under \$115,000 for the purposes of calculating the fiscal year 2025 property tax credit
- Households that do not qualify for a property tax credit may not submit their household income.
 - This means the data for household income groups greater than \$115,000 is incomplete, and has not been included in this analysis.

Estimated number of housesites with a household income under \$115,000 in fiscal year 2025 under current law

| Household Income Group | Equalized Housesite Value Group | | | | | Total |
|------------------------|---------------------------------|------------------------|------------------------|------------------------|----------------|----------------|
| | \$0 to \$100,000 | \$100,000 to \$225,000 | \$225,000 to \$300,000 | \$300,000 to \$400,000 | Over \$400,000 | |
| \$0 to \$25,000 | 2,100 | 5,300 | 1,900 | 1,200 | 700 | 11,200 |
| \$25,000 to \$47,000 | 2,700 | 9,900 | 4,500 | 3,000 | 1,700 | 21,800 |
| \$47,000 to \$75,000 | 2,200 | 13,300 | 8,000 | 6,100 | 3,500 | 33,000 |
| \$75,000 to \$90,000 | 600 | 5,400 | 4,100 | 3,500 | 2,500 | 16,100 |
| \$90,000 to \$115,000 | 600 | 6,500 | 5,900 | 5,700 | 4,300 | 23,000 |
| Total | 8,200 | 40,400 | 24,300 | 19,400 | 12,700 | 105,000 |

Notes: 1) Groupings of household income and equalized housesite value are chosen to be consistent with modeling from the Department of Taxes. Please note that the baskets are not the same size. 2) Numbers of households have been rounded to the nearest 100.



A final note about modeling

- This analysis provides preliminary estimates.
 - The modeling aims to provide a sense of scale and intuition.
- With further analysis, the estimates may be further refined.



Modeling no income sensitivity in fiscal year 2025



Modeling changes in liability if there were no income sensitivity

- Modeling no income sensitivity in fiscal year 2025 provides a basis to begin an analysis.
- If there was no income sensitivity calculated from fiscal year 2025, property taxes would need to raise \$153 million less than under current law.
 - If less were to be raised, this could impact homestead property rates, nonhomestead property rates, or both.
- To estimate the change in liability, 3 steps are conducted:
 1. First, the modeling applies the \$153 million to lowering rates,
 2. Using the new rates, the new liability is calculated,
 3. The current law liability is compared to the new liability.



Modeling no income sensitivity, and reducing homestead property tax rates and nonhomestead property tax rates uniformly

- One way to apply the \$153 million to tax rates is to use it to uniformly lower the homestead rate and the nonhomestead rate.
- In this case, lower income groups would see the largest average increase in liability, while the group with the incomes above \$90,000 would see no change or decreases in average liability.

Average difference in liabilities between current law and no property tax credit (\$153M to HS and NHS), FY 2025

| Household Income Group | Equalized Housesite Value Group | | | | |
|------------------------|---------------------------------|------------------------|------------------------|------------------------|----------------|
| | \$0 to \$100,000 | \$100,000 to \$225,000 | \$225,000 to \$300,000 | \$300,000 to \$400,000 | Over \$400,000 |
| \$0 to \$25,000 | \$ 470 | \$ 1,610 | \$ 2,760 | \$ 3,730 | \$ 4,400 |
| \$25,000 to \$47,000 | \$ 220 | \$ 1,200 | \$ 2,310 | \$ 3,320 | \$ 3,930 |
| \$47,000 to \$75,000 | \$ (70) | \$ 800 | \$ 1,490 | \$ 2,460 | \$ 3,020 |
| \$75,000 to \$90,000 | \$ (80) | \$ 100 | \$ 960 | \$ 1,930 | \$ 2,440 |
| \$90,000 to \$115,000 | \$ (80) | \$ (130) | \$ 0 | \$ (130) | \$ (390) |

Note: Average liability changes have been rounded to the nearest 10.



Modeling no income sensitivity, and reducing only homestead property tax rates

- Another way to apply the \$153 million to tax rates is to use it to only lower the homestead rate.
 - In this case, more homestead taxpayers would see a decrease in liability than the previous slide.
- The lowest income groups would still see the largest average increase in liability, while the groups with the higher incomes would see decreases in average liability.

Average difference in liabilities between current law and no property tax credit (all \$153M to HS), FY 2025

| Household Income Group | Equalized Housesite Value Group | | | | |
|------------------------|---------------------------------|------------------------|------------------------|------------------------|----------------|
| | \$0 to \$100,000 | \$100,000 to \$225,000 | \$225,000 to \$300,000 | \$300,000 to \$400,000 | Over \$400,000 |
| \$0 to \$25,000 | \$ 390 | \$ 1,380 | \$ 2,320 | \$ 3,120 | \$ 3,340 |
| \$25,000 to \$47,000 | \$ 130 | \$ 960 | \$ 1,880 | \$ 2,720 | \$ 2,920 |
| \$47,000 to \$75,000 | \$ (160) | \$ 260 | \$ 1,070 | \$ 1,870 | \$ 2,040 |
| \$75,000 to \$90,000 | \$ (180) | \$ (150) | \$ 550 | \$ 1,350 | \$ 1,470 |
| \$90,000 to \$115,000 | \$ (180) | \$ (370) | \$ (420) | \$ (710) | \$ (1,350) |

Note: Average liability changes have been rounded to the nearest 10.



Modeling only the circuit breaker in fiscal year 2025



Modeling changes in liability if there was only the circuit breaker

- Recall the property tax credit has a specific set of provisions for households with household incomes less than \$47,000.
 - Households with income under \$47,000 are entitled to a further tax credit if their net education tax exceeds a fixed percentage of household income.
 - This is often referred to as the “circuit breaker”.

| Net State Education Tax | |
|-------------------------|------------------------|
| Household Income | Tax Cap as % of Income |
| Less than \$9,999 | 0.5% |
| \$10,000 – \$24,999 | 1.5% |
| \$25,000 - \$47,000 | 2.0% |

- In fiscal year 2025, the income sensitivity for households under \$47,000 is estimated to be approximately \$70 million.
 - This \$70 million is included in the overall \$153 million estimate for the entire property tax credit.



Modeling changes in liability if there was only the circuit breaker

- If there was only income sensitivity for households up to \$47,000, property taxes would need to raise approximately \$83 million less than under current law.
 - If less were to be raised, this could impact homestead property rates, nonhomestead property rates, or both.
- To estimate the change in liability, 3 steps are conducted:
 1. First, the modeling applies the \$83 million to lowering homestead and nonhomestead bills uniformly,
 2. Using the new rates, the new liability is calculated,
 3. The current law liability is compared to the new liability.
 - *Note: This is an artificial stop to the iterative process. The “savings” from the new rates (and thus lower circuit breaker cost) are not applied to rates. The savings are estimated to be approximately \$4 million.*



Modeling no income sensitivity beyond circuit breaker, and reducing homestead property tax rates and nonhomestead property tax rates uniformly

- One way to apply the \$83 million to tax rates is to use it to uniformly lower the homestead rate and the nonhomestead rate.
- In this case, we are only looking at the groups *above* \$47,000, as we are maintaining current law for the circuit breaker groups.
 - Households within the circuit breaker group that have a housesite greater than \$400,000 may also have a decrease in liability

Estimated average difference in liabilities between current law and no property tax credit (\$83M to HS and NHS), FY 2025

| Household Income Group | Equalized Housesite Value Group | | | | |
|------------------------|---------------------------------|------------------------|------------------------|------------------------|----------------|
| | \$0 to \$100,000 | \$100,000 to \$225,000 | \$225,000 to \$300,000 | \$300,000 to \$400,000 | Over \$400,000 |
| \$47,000 to \$75,000 | \$ (40) | \$ 580 | \$ 1,630 | \$ 2,660 | \$ 3,330 |
| \$75,000 to \$90,000 | \$ (40) | \$ 190 | \$ 1,100 | \$ 2,130 | \$ 2,750 |
| \$90,000 to \$115,000 | \$ (40) | \$ (50) | \$ 150 | \$ 60 | \$ (80) |

Note: Average liability changes have been rounded to the nearest 10.



Modeling no income sensitivity beyond circuit breaker, and reducing homestead property tax rates and nonhomestead property tax rates uniformly

- Another way to apply the \$83 million to tax rates is to use it to only lower the homestead rate.
- In this case, we are only looking at the groups *above* \$47,000, as we are maintaining current law for the circuit breaker groups
 - Households within the circuit breaker group that have a housesite greater than \$400,000 may also have a decrease in liability

Estimated average difference in liabilities between current law and no property tax credit (All \$83M to HS), FY 2025

| Household Income Group | Equalized Housesite Value Group | | | | |
|------------------------|---------------------------------|------------------------|------------------------|------------------------|----------------|
| | \$0 to \$100,000 | \$100,000 to \$225,000 | \$225,000 to \$300,000 | \$300,000 to \$400,000 | Over \$400,000 |
| \$47,000 to \$75,000 | \$ (90) | \$ 430 | \$ 1,370 | \$ 2,290 | \$ 2,760 |
| \$75,000 to \$90,000 | \$ (100) | \$ 30 | \$ 850 | \$ 1,770 | \$ 2,180 |
| \$90,000 to \$115,000 | \$ (110) | \$ (200) | \$ (110) | \$ (300) | \$ (660) |

Note: Average liability changes have been rounded to the nearest 10.



Final notes



Preliminary modeling of a homestead exemption in a dollar figure rather than a percentage

- The Administration's homestead exemption proposes a homestead exemption tiered based on income.
 - The proposal calculates the exemption as a percentage.
- Modeling was conducted to estimate a dollar exemption needed to transition to a homestead exemption and not increase the liability on housesites with incomes up to \$90,000.
 - Preliminary modeling suggests that if the exemption were to be a flat dollar figure, the exemption would need to be approximately \$300,000 for there to be no increase in average liability.



Considerations

- Modeling changes to the property tax credit can be complex and iterative.
 - Policy changes impact the size of income sensitivity which, in turn, impact tax rates.
- Changes to the property tax credit impact other liabilities in the income and housesite value distribution.
 - This is often referred to as “pushing on the balloon”.
- Tradeoffs between the tax principles of “fairness” and “simplicity” often arise when considering changes to the property tax credit.

