# EFFECT OF TAX CREDITS ON INDIVIDUAL INCOME TAX RATE 

A Report Prepared for the
Revenue \& Transportation Interim Committee

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## INTRODUCTION

An analysis of the effect of individual income tax credits on the average effective individual income tax rate was presented to the Revenue and Transportation Interim Committee meeting on September $9^{\text {th }}$. For that report, the analysis was limited to the subset of full year resident taxpayers with incomes greater than $\$ 0$ who claimed at least $\$ 1$ of tax credit in 2009. This report expands the analysis to include all full year resident taxpayers with incomes greater than $\$ 0$, and spans tax years 2005 through 2010.

## Income, Taxes \& Credits By Income Decile

| Average Total Income by Income Decile |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Decile | 2005 |  | 2006 | 2007 |  | 2008 |
| 1 | $\$ 2,727$ | $\$ 2,875$ | $\$ 2,744$ | $\$ 2,896$ | $\$ 2,924$ | $\$ 3,122$ |
| 2 | 7,255 | 7,690 | 7,675 | 7,980 | 8,043 | 8,535 |
| 3 | 12,076 | 12,837 | 13,033 | 13,443 | 13,364 | 14,031 |
| 4 | 17,326 | 18,371 | 18,857 | 19,333 | 19,127 | 19,938 |
| 5 | 23,372 | 24,811 | 25,565 | 26,095 | 25,706 | 26,777 |
| 6 | 31,162 | 33,002 | 34,129 | 34,647 | 34,014 | 35,489 |
| 7 | 41,246 | 43,754 | 45,404 | 45,914 | 45,082 | 47,049 |
| 8 | 54,471 | 57,641 | 60,078 | 60,662 | 59,656 | 62,131 |
| 9 | 72,999 | 77,408 | 80,845 | 81,484 | 80,319 | 83,430 |
| 10 | 178,827 | 196,810 | 202,925 | 193,934 | 176,224 | 189,826 |


| Average Total Tax by Income Decile |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Decile | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| 1 | \$2 | \$2 | \$2 | \$2 | \$2 | \$3 |
| 2 | 30 | 33 | 30 | 30 | 31 | 35 |
| 3 | 97 | 106 | 106 | 105 | 101 | 111 |
| 4 | 224 | 248 | 255 | 251 | 237 | 257 |
| 5 | 440 | 476 | 502 | 493 | 466 | 495 |
| 6 | 734 | 794 | 830 | 833 | 785 | 833 |
| 7 | 1,146 | 1,224 | 1,273 | 1,266 | 1,213 | 1,296 |
| 8 | 1,716 | 1,806 | 1,878 | 1,873 | 1,826 | 1,936 |
| 9 | 2,631 | 2,761 | 2,848 | 2,852 | 2,793 | 2,958 |
| 10 | 9,209 | 9,706 | 9,583 | 9,124 | 8,234 | 8,995 |


| Average Total Credit by Income Decile |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Decile | 2005 |  | 2006 | 2007 |  | 2008 |
| 1 | $\$ 54$ | $\$ 52$ | $\$ 61$ | $\$ 64$ | $\$ 69$ | $\$ 69$ |
| 2 | 52 | 51 | 47 | 50 | 52 | 52 |
| 3 | 47 | 43 | 41 | 44 | 43 | 43 |
| 4 | 33 | 31 | 31 | 30 | 30 | 28 |
| 5 | 27 | 29 | 32 | 28 | 29 | 32 |
| 6 | 29 | 35 | 41 | 36 | 38 | 44 |
| 7 | 40 | 50 | 61 | 51 | 56 | 65 |
| 8 | 62 | 76 | 95 | 78 | 84 | 95 |
| 9 | 93 | 116 | 151 | 124 | 132 | 147 |
| 10 | 884 | 1,091 | 1,365 | 1,094 | 815 | 981 |

## Effective Tax Rates Before \& After Credits By Income Decile

| Average Effective Tax Rate Before Credits by Income Decile |  |  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :--- |
| Decile | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| 1 | $0.6874 \%$ | $0.1089 \%$ | $0.0372 \%$ | $0.5522 \%$ | $0.0515 \%$ | $0.4833 \%$ |
| 2 | $0.3972 \%$ | $0.3997 \%$ | $0.3709 \%$ | $0.3599 \%$ | $0.3623 \%$ | $0.3878 \%$ |
| 3 | $0.7903 \%$ | $0.8104 \%$ | $0.7976 \%$ | $0.7626 \%$ | $0.7385 \%$ | $0.7730 \%$ |
| 4 | $1.2800 \%$ | $1.3326 \%$ | $1.3352 \%$ | $1.2832 \%$ | $1.2244 \%$ | $1.2726 \%$ |
| 5 | $1.8683 \%$ | $1.9073 \%$ | $1.9501 \%$ | $1.8781 \%$ | $1.8029 \%$ | $1.8356 \%$ |
| 6 | $2.3441 \%$ | $2.3955 \%$ | $2.4223 \%$ | $2.3941 \%$ | $2.2963 \%$ | $2.3378 \%$ |
| 7 | $2.7676 \%$ | $2.7871 \%$ | $2.7957 \%$ | $2.7479 \%$ | $2.6801 \%$ | $2.7457 \%$ |
| 8 | $3.1437 \%$ | $3.1253 \%$ | $3.1177 \%$ | $3.0813 \%$ | $3.0526 \%$ | $3.1066 \%$ |
| 9 | $3.5899 \%$ | $3.5536 \%$ | $3.5094 \%$ | $3.4864 \%$ | $3.4634 \%$ | $3.5325 \%$ |
| 10 | $4.5775 \%$ | $4.4539 \%$ | $4.3389 \%$ | $4.3176 \%$ | $4.3024 \%$ | $4.3608 \%$ |


| Average Effective Tax Rate After Credits by Income Decile |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Decile | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| 1 | $-94.4695 \%$ | $-73.8509 \%$ | $-568.1831 \%$ | $-394.8612 \%$ | $-461.7089 \%$ | $-248.9494 \%$ |
| 2 | $-0.3335 \%$ | $-0.2814 \%$ | $-0.2642 \%$ | $-0.2905 \%$ | $-0.3076 \%$ | $-0.2409 \%$ |
| 3 | $0.3878 \%$ | $0.4692 \%$ | $0.4788 \%$ | $0.4293 \%$ | $0.4109 \%$ | $0.4602 \%$ |
| 4 | $1.0888 \%$ | $1.1583 \%$ | $1.1676 \%$ | $1.1237 \%$ | $1.0649 \%$ | $1.1282 \%$ |
| 5 | $1.7524 \%$ | $1.7879 \%$ | $1.8246 \%$ | $1.7708 \%$ | $1.6892 \%$ | $1.7169 \%$ |
| 6 | $2.2498 \%$ | $2.2883 \%$ | $2.3020 \%$ | $2.2892 \%$ | $2.1832 \%$ | $2.2146 \%$ |
| 7 | $2.6719 \%$ | $2.6728 \%$ | $2.6626 \%$ | $2.6379 \%$ | $2.5553 \%$ | $2.6084 \%$ |
| 8 | $3.0304 \%$ | $2.9947 \%$ | $2.9599 \%$ | $2.9526 \%$ | $2.9118 \%$ | $2.9535 \%$ |
| 9 | $3.4638 \%$ | $3.4040 \%$ | $3.3233 \%$ | $3.3351 \%$ | $3.3001 \%$ | $3.3566 \%$ |
| 10 | $4.2937 \%$ | $4.1312 \%$ | $3.9368 \%$ | $3.9987 \%$ | $4.0079 \%$ | $4.0402 \%$ |


| Average Percent Decrease in Tax Rate by Income Decile |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Decile |  |  |  |  |  |  |
| 1 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| 2 | $13842.29 \%$ | $67935.56 \%$ | $1527927.37 \%$ | $71604.99 \%$ | $895878.49 \%$ | $51615.36 \%$ |
| 2 | $183.96 \%$ | $170.41 \%$ | $171.23 \%$ | $180.73 \%$ | $184.92 \%$ | $162.12 \%$ |
| 3 | $50.93 \%$ | $42.10 \%$ | $39.97 \%$ | $43.71 \%$ | $44.36 \%$ | $40.47 \%$ |
| 4 | $14.94 \%$ | $13.08 \%$ | $12.55 \%$ | $12.43 \%$ | $13.03 \%$ | $11.35 \%$ |
| 5 | $6.20 \%$ | $6.26 \%$ | $6.44 \%$ | $5.71 \%$ | $6.31 \%$ | $6.46 \%$ |
| 6 | $4.03 \%$ | $4.47 \%$ | $4.97 \%$ | $4.38 \%$ | $4.93 \%$ | $5.27 \%$ |
| 7 | $3.46 \%$ | $4.10 \%$ | $4.76 \%$ | $4.00 \%$ | $4.66 \%$ | $5.00 \%$ |
| 8 | $3.60 \%$ | $4.18 \%$ | $5.06 \%$ | $4.18 \%$ | $4.61 \%$ | $4.93 \%$ |
| 9 | $3.51 \%$ | $4.21 \%$ | $5.30 \%$ | $4.34 \%$ | $4.71 \%$ | $4.98 \%$ |
| 10 | $6.20 \%$ | $7.25 \%$ | $9.27 \%$ | $7.39 \%$ | $6.85 \%$ | $7.35 \%$ |

## EfFECTIVE TAX RATES-GRAPHICAL REPRESENTATION





## Effective Tax Rate Before \& After Credits by Income Decile, TY 2008

Full Year Residents, Total Income $>\$ 0$; Count $=429,431$




