



The Impact of the Presidential Candidates' Tax Proposals on Effective Marginal Tax Rates

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In previous work, the Urban-Brookings Tax Policy Center (TPC) analyzed the revenue and distributional implications of the tax proposals of presidential candidates John McCain and Barack Obama.¹ This paper expands on that analysis by focusing on the impact of the Senators' plans on effective marginal individual income tax rates.

We define a taxpayer's effective marginal tax rate (EMTR) as the percentage of an additional dollar of income that would be paid in federal income tax. Effective marginal rates differ from statutory marginal rates because of the phase in and phase out of various credits and deductions in the tax code. A taxpayer's EMTR is also different from his or her *average* tax rate, which is the total amount of tax paid measured as a percentage of income. A policy proposal could provide a tax reduction and thus reduce an individual's average tax rate while simultaneously increasing the individual's effective marginal tax rate.

The EMTR faced by an individual on various types of income could affect that person's decisions about whether to work more, save more, or avoid income tax.² This paper focuses on the EMTR on wages and salaries under the federal individual income tax.³ A higher EMTR on earnings reduces the reward to additional hours of work (or more work effort), and therefore may discourage work. A higher EMTR also encourages tax avoidance such as the restructuring of compensation packages away from taxable wages and salaries and into untaxed fringe benefits. Both the reduction in hours worked and additional tax avoidance would reduce taxable incomes as the effective marginal tax rate goes up.⁴

We use the TPC's microsimulation model of the federal tax system to calculate effective marginal tax rates.⁵ For each of the household records in our nationally representative tax model database, we determine the EMTR on wages and salaries by first calculating individual income tax using the household's actual income. We then add \$1,000 to wages and salaries and recompute the household's individual income tax liability. The effective marginal tax rate is then the resulting change in income tax divided by the \$1,000 increase in wages.⁶

¹ See Burman and others (2008).

² See Slemrod (1995) for a discussion and empirical evidence from the 1986 Tax Reform Act.

³ Although we focus on the federal income tax, other federal, state, and local taxes may also affect the marginal tax rate on earnings. Brill and Viard (2008) also discuss the impact of Senator Obama's proposals on effective marginal tax rates under the individual income tax but they concentrate on the effect on a certain family type.

⁴ There is also another effect that could cause the individual to work more, not less, when faced with higher marginal tax rates. With a higher EMTR, the individual would need to work more additional hours to achieve a specific desired increase in after-tax income. For example, suppose an individual would like to earn an extra \$2,000 for a down payment on a new car. The higher the marginal tax rate that this individual faces, the more extra hours he or she would need to work in order to earn that \$2,000 in after-tax income. Thus, at least in theory, the impact on labor supply of a change in marginal tax rates is inconclusive.

⁵ Appendix A describes the tax model.

⁶ We use a \$1,000 increment—rather than a smaller increment such as \$1—to avoid the extreme marginal rates that would result from the step structure of some phaseouts. For example, the child tax credit (CTC) phaseout amount is 5 percent for each \$1,000 of adjusted gross income (AGI) above a certain threshold.

The paper proceeds as follows. Section I describes the aspects of each candidate's tax proposals that would potentially impact effective marginal tax rates. Section II presents results from the TPC tax model showing how each plan affects EMTRs. Section III concludes.

I. Description of Changes to Effective Marginal Tax Rates in Candidates' Proposals

The tax proposals of both presidential candidates would alter marginal tax rates.⁷ Senator McCain's plan changes statutory marginal rates and increases the dependent and alternative minimum tax (AMT) exemptions. Senator Obama would likewise change statutory rates and raise the AMT exemption, but he would also modify and expand existing credits and deductions and introduce new ones. Obama's new and expanded credits would reduce the amount of tax owed by households and thus reduce average tax rates. At the same time, however, they would raise marginal tax rates for some households (because of refundability and phaseouts) while lowering them for others (because of phaseins and changing tax brackets).

A. Proposed Extensions of the 2001 and 2003 Tax Acts

Both Senator McCain and Senator Obama would extend most provisions of the 2001 and 2003 tax cuts (EGTRRA and JGTRRA), which are scheduled to expire after 2010.⁸ Under current law, the 10 percent income tax bracket will disappear in 2011 and the 25, 28, 33, and 35 percent brackets will increase to 28, 31, 36, and 39.6 percent, respectively. Senator McCain would extend the statutory rate schedule established by EGTRRA and JGTRRA. Senator Obama would extend the 10, 15, 25, and 28 percent tax rates but restore the 36 and 39.6 percent rates imposed on the highest income taxpayers.

The child tax credit (CTC) is scheduled to revert in 2011 from a partially refundable \$1,000 credit per child to a \$500 non-refundable credit.⁹ Senators Obama and

Thus a family with one qualifying child loses \$50 of CTC (5 percent of \$1,000) when its income crosses one of those \$1,000 thresholds. With a \$1 increment in wages and salaries, we would measure the family's EMTR as 5,000 percent (a \$50 increase in tax divided by a \$1 increase in income, multiplied by 100 percent) at the threshold and zero elsewhere.

⁷ The description of the candidates' proposals draws heavily from Burman et al. (2008).

⁸ EGTRRA is the Economic Growth and Tax Relief Reconciliation Act of 2001; JGTRRA is the Jobs and Growth Tax Relief Reconciliation Act of 2003.

⁹ A credit is referred to as "refundable" if it is available to the household regardless of how much income tax, if any, the family owes. The CTC is only partially refundable because—although a household is potentially eligible regardless of its individual income tax liability—the value of the credit equals 15 percent of the amount by which earnings exceed a threshold (\$12,050 for 2008, indexed annually for inflation). After 2010, families with three or more qualifying children could still be eligible for a partially

McCain both propose to extend the credit in its current form. That extension would affect EMTRs in several ways. The CTC currently phases out for high-income taxpayers: the credit is reduced by 5 percent of income exceeding \$75,000 for individuals and \$110,000 for couples. The larger the credit per child, the greater is the income range over which the credit phases out. Raising the 2011 credit from \$500 per child to \$1,000—as both candidates propose—would thus extend the phaseout range and increase EMTRs for individuals whose income is too high to receive the \$500 credit but who would be in the phaseout range if the credit were higher. Extending the partial refundability of the CTC would have the opposite effect on low-income households: it would lower EMTRs for those who are in the phase-in range that begins at \$12,050 (in 2008; the threshold is indexed for inflation).

Pre-2001 tax law phased out both personal exemptions and itemized deductions for high-income taxpayers under provisions known as PEP and Pease.¹⁰ These phaseouts effectively raised marginal tax rates. PEP reduced a taxpayer's personal exemptions by 2 percent for each \$2,500 of AGI (or fraction thereof) above a specified threshold that is indexed annually for inflation. In 2009, the threshold will be \$247,650 for married couples and \$165,100 for single individuals. Pease reduced itemized deductions by 3 percent of the amount by which a taxpayer's AGI exceeds a certain threshold (equal to \$165,100 for all filing statuses in 2009 and indexed annually for inflation).¹¹ The 2001 tax act gradually repealed both PEP and Pease beginning in 2006: for 2009, the amount of the phaseout of both exemptions and itemized deductions will be one-third of the pre-EGTRRA amount. Both PEP and Pease disappear entirely in 2010 but, barring legislative action, they will return in their pre-EGTRRA form in 2011.

Senator McCain proposes to extend and make permanent the repeal of PEP and Pease. His proposal would therefore lower marginal tax rates for taxpayers who would otherwise be subject to those provisions after 2010.

Beginning in 2009, Senator Obama would fully restore and make permanent the phaseout of both personal exemptions and itemized deductions for married couples with AGI exceeding \$250,000 (\$200,000 for others). As under current law, the thresholds would be indexed annually for inflation. Since the thresholds under Obama's plan would be higher than under current law (see above), his proposal would lower the EMTR for taxpayers with income between the current and proposed thresholds since PEP and Pease would no longer affect them. But his proposal would raise marginal rates for most taxpayers with income above the thresholds, relative to current law in 2009 and 2010, and leave them unchanged for years after 2010.

refundable credit under a provision that was already in place before the 2001 tax act. This provision affects few families, however.

¹⁰ PEP refers to the Phaseout of Personal Exemptions. Pease refers to the limitation on itemized deductions and is named after the late Congressman Donald Pease (D-OH).

¹¹ Some itemized deductions, including charitable contributions, are not subject to Pease. In addition, the reduction in itemized deductions cannot exceed 80 percent of total deductions.

Box 1. Earnings subject to Social Security payroll tax

In 2008, the first \$102,000 of earnings is subject to Social Security payroll taxes at rates of 6.2 percent on both employees and employers. The amount is indexed annually for inflation. All earnings are also subject to Medicare payroll taxes at rates of 1.45 percent on employees and employers. The Obama campaign denies having a particular policy relating to payroll taxes. However, Senator Obama has repeatedly suggested that he would increase taxes on high-income individuals as a way to extend the solvency of Social Security, but that any such increase would not take effect for years. When modeling the revenue and distributional implications of Senator Obama's proposal as outlined by his economic advisers, the TPC did not include any change to payroll taxes or any form of income tax surcharge to pay for Social Security reform (and we do not include any in this paper either). When analyzing the impact of Obama's proposals as outlined in his stump speeches, lacking specifics, the TPC assumed an additional two percent income tax on AGI above \$250,000 and a two percent payroll tax paid by employers on each worker's compensation above \$250,000. Combined with a top federal income tax rate of 39.6 percent (nearly 41 percent including the effect of the itemized deduction phaseout), that proposal could raise effective tax rates on labor income for high earners to about 45 percent.

B. Proposed Changes to the Alternative Minimum Tax

Individuals who potentially owe AMT must compute their tax liability twice, once under the regular tax rules and once under the AMT rules. They must then pay the higher of the two amounts. The AMT has its own exemption, which Congress has temporarily increased since 2001. The 2007 exemption was \$66,250 for married couples filing jointly and \$44,350 for singles and heads of household. In 2008, the exemption is scheduled to return to its 2000 level of \$45,000 for couples and \$33,750 for singles and heads of household. If Congress does not again "patch" the AMT by raising the exemption, the number of AMT taxpayers will jump from 4.1 million in 2007 to 26.8 million in 2008 (Rohaly and Leiserson 2008).

Both presidential candidates would permanently extend the higher 2007 AMT exemption, index it for inflation, and allow individuals to claim personal credits against the AMT.¹² In addition, Senator McCain would index the exemption after 2013 for inflation plus 5 percent until the joint exemption reaches \$143,000, after which the rate of

¹² Under current law for 2008 and after, certain credits such as the child and dependent care tax credit (CDCTC) and the education credits cannot reduce a taxpayer's liability below the level of his or her tentative minimum tax (essentially the amount of tax owed under the AMT rules). Consider a taxpayer with regular tax liability before credits of \$5,000 and tentative AMT of \$4,400 who is potentially eligible for a \$1,000 CDCTC. This taxpayer does not actually pay any AMT liability since his or her regular tax exceeds the amount of tax under the AMT rules. Nonetheless, the individual is affected by the AMT. Specifically; the taxpayer would only be allowed to use \$600 of his or her CDCTC to reduce tax liability down to the tentative AMT of \$4,400. The taxpayer would then have \$400 in "lost credits" due to the AMT.

increase would return to inflation only. These changes would affect EMTRs for tax units who would pay the AMT under current law but not under the Senators' proposals. Contrary to conventional wisdom, most AMT taxpayers face higher marginal tax rates than under the regular tax. Under current law in 2010, 89 percent of AMT taxpayers will face higher EMTRs because of the AMT (Burman et al 2008).¹³ This seemingly anomalous result arises because the AMT exempts a large share of income for many middle-income taxpayers. Such households can end up on the AMT only if the AMT tax rates—26 and 28 percent—are much higher than their average rate under the regular income tax. So as the AMT extends its reach down into the middle and upper middle classes, many taxpayers who would be in the 15 or 25 percent tax brackets under the regular tax find themselves facing the AMT's 26 or 28 percent marginal rates. In addition, the phaseout of the AMT exemption creates effective marginal rates of 32.5 percent and 35 percent, higher than the 25 or 28 percent rate that many AMT taxpayers would have faced under the regular tax. Thus extending the higher AMT exemption level will decrease marginal rates for most individuals who move off of the AMT.

The allowance of personal credits regardless of tentative AMT could also affect EMTRs: individuals could suddenly find themselves affected by phaseouts of credits to which they were not previously entitled because of the AMT restriction. These taxpayers would be paying less tax—and thus have a lower average tax rate—because they would be able to claim the credit, but they would face a higher marginal tax rate because they would be in the credit's phaseout range.

C. Proposed Modifications to Existing Credits and Exemptions

Taxpayers may claim a deduction for each dependent—\$3,500 in 2008, indexed for inflation going forward. Senator McCain would increase the dependent exemption to \$7,000 in 2010 for married couples with adjusted gross income (AGI) less than \$50,000; for all others, he would raise the dependent exemption by \$500 each year beginning in 2010 until it reaches \$7,000 in 2016. In subsequent years, the exemption would again be indexed for inflation. The increase in the amount of the exemption would lower EMTRs when it moves a taxpayer into a lower statutory tax bracket.¹⁴ Increasing the dependent exemption could also have the unintended consequence of raising EMTRs because of the AMT. Raising the dependent exemption reduces liability under the regular tax system but does not reduce AMT liability since personal exemptions are not allowed under the alternative tax. Thus more taxpayers would find themselves thrown onto the AMT under Senator McCain's plan. As explained above, the vast majority of AMT taxpayers face higher effective marginal rates than they would have under the regular tax system.

¹³ See also Rohaly and Leiserson (2008).

¹⁴ The immediate full increase in the exemption only for married couples with AGI below \$50,000 also affects EMTRs for some taxpayers if we assume (as we have) that the full increase would be phased out for married couples whose AGI exceeds \$50,000. Specifically, we assume that the \$7,000 exemption would phase down at a 10-percent rate to the value that applies to single taxpayers. Under that assumption, Senator McCain's proposal would raise marginal tax rates for married couples with incomes in that phaseout range.

In 2008, the Hope education credit equals 100 percent of the first \$1,200 of qualified higher educational expenses and 50 percent of the next \$1,200 for a maximum credit of \$1,800 per student (with all values indexed for inflation); the credit is non-refundable and phases out for high-income taxpayers over a \$10,000 income range for single individuals (\$20,000 for couples). Senator Obama would make the credit refundable, increase it to 100 percent of the first \$4,000 of qualifying higher education expenses, and rename it the American Opportunity Tax Credit. We assume that the credit would continue both the income phaseout (with the same thresholds) and indexation of the maximum level of qualifying expenses. Obama's plan would increase EMTRs—relative to current law—for tax units with income in the phaseout range who claim a credit larger than the current law maximum of \$1,800.

Individuals claiming the credit who do not have enough income tax liability to receive the full benefit of the credit under current law will see EMTRs increase if the credit is made fully refundable (although the actual amount of tax they pay—and thus their average tax rate—would fall because they would now be entitled to the full credit). This applies generally to proposals that turn non-refundable credits into refundable ones.¹⁵ Consider a family with \$1,000 in income tax liability before credits that is entitled to a \$1,500 non-refundable credit. The family pays zero in tax after applying the credit. Suppose the family earns an extra \$1,000 and that their income tax liability before credits therefore rises to \$1,100. Then the family would continue to pay zero tax after applying their non-refundable credit and so their effective marginal tax rate is 0 percent. But if the credit were fully refundable, the family would initially receive a \$500 refund (\$1,000 in tax before credits less a \$1,500 fully refundable tax credit). After the \$1,000 increase in income and the resulting increase in tax before credits to \$1,100, they would receive only a \$400 refund (\$1,100 in tax before credits less a \$1,500 fully refundable tax credit). Thus the \$1,000 increase in income caused them to lose \$100 of their refund resulting in a marginal tax rate of 10 percent. So transforming non-refundable credits into refundable credits can increase EMTRs for some households.

Senator Obama proposes several expansions to the earned income tax credit (EITC). First, he would increase the maximum amount of earned income used to calculate the credit for childless workers and increase the threshold at which the phaseout begins. The first change would increase the length of the phase-in range relative to current law and thus decrease EMTRs for some individuals. Effective marginal rates would also fall for some tax units that previously were in the phaseout range but now have incomes beneath the proposed higher threshold. The longer phaseout range would, however, increase EMTRs for individuals whose income is too high to get any EITC under current law but who would get the credit under the proposal. A second change proposed by Obama would double the phase-in and phaseout rates for childless workers who pay child support from 7.65 to 15.3 percent, decreasing marginal rates for those in the phase-in range and increasing them for those in the phaseout range. Third, he would increase the credit rate from 40 to 45 percent for tax units with three or more children.

¹⁵ See Brill and Viard (2008).

Under current law, such families receive the same credit as those with two children. The proposed increase would reduce EMTRs for larger families in the phase-in income range. And even though Obama would not change the phaseout rate and threshold, the bigger credit would phase out over a longer range of incomes, raising EMTRs for currently ineligible families who would get the credit under Obama's proposal. Finally, Senator Obama would make the phaseout threshold for joint filers \$5,000 higher than for heads of households (it is currently \$3,100 higher) and index that amount for inflation after 2009. Like the other changes to the EITC, this would increase EMTRs for individuals who previously were ineligible for the credit and would now be in the phaseout range and decrease rates for those who previously were in the phaseout range but would now be below the threshold.

Currently, taxpayers may claim a non-refundable credit of up to 35 percent of qualified child care expenses incurred while they are working or looking for work. Senator Obama proposes to make this child and dependent care tax credit (CDCTC) refundable and increase the maximum credit rate to 50 percent. The credit rate would be decreased by 2 percent for each \$2,000 (or fraction thereof) by which AGI exceeds \$30,000 until the rate reaches 20 percent for taxpayers with income above \$58,000. (Currently, the rate is decreased by 1 percent for every \$2,000 above \$15,000 until it hits 20 percent for those with income above \$43,000.) Since the credit is phased out in steps, effective marginal tax rates are very high for those with income just under the next step of the phase-out. Individuals with too little income tax liability to claim the full non-refundable credit would have increased EMTRs because Obama would make the credit refundable. More specifically, tax units claiming the credit with incomes between \$15,000 and \$30,000 would see a reduction in EMTRs, relative to current law, because they would no longer be in the phaseout range. Those with incomes between \$30,000 and \$43,000 would face higher marginal rates as they would remain in the phaseout range but the credit rate would decrease more quickly. Tax units with incomes above the current phaseout range but within the proposed one (\$43,000 to \$58,000) would also see an increase in marginal rates.

Obama would make the current non-refundable saver's tax credit fully refundable and equal to 50 percent of qualified retirement savings contributions up to \$500 for an individual (\$1,000 for couples). This credit would phase out at a 5 percent rate when AGI exceeds \$32,500 for individuals and \$65,000 for couples. Making the credit refundable would raise EMTRs for tax units who cannot receive their full credit under current law because the credit amount exceeds their income tax liability. In 2008, the percentage of qualified retirement savings contributions allowed is phased out for married couples between \$32,000 and \$53,000, for singles between \$16,000 and \$26,500, and for heads of household between \$24,000 and \$39,750. These income thresholds are indexed annually for inflation. At certain income breaks within the ranges, the percentage of contributions allowed is reduced from 50 percent to 0. Because Obama proposes to increase phaseout income ranges, individuals who are not now in the phaseout range would face higher marginal rates. Tax units that are now in the phaseout range but would not be under the proposal would see EMTRs fall. For heads of household that remain in the phaseout

range under both current law and Obama's plan (income between \$32,500 and \$39,750), EMTRs could increase or decrease.

Senator Obama would mandate automatic 401(k) plans for employers currently offering retirement plans and automatic IRAs for those who do not sponsor retirement plans. These automatic plans would enroll employees in their employer's retirement plan unless they opt out—the reverse is currently the case—but would not change the range of options available to workers. To the extent that automatic retirement savings plans increase saving and decrease taxable earnings, this provision could move individuals into lower tax brackets, or off the AMT, and reduce EMTRs.

D. Obama's Proposed New Credits and Exemptions

Senator Obama has proposed additional credits that alter the EMTRs for eligible individuals. His Making Work Pay credit would be a refundable tax credit equal to 6.2 percent of up to \$8,100 of earnings (yielding a maximum credit of approximately \$500). Spouses filing jointly would claim the credit based on their own earnings. We assume that the credit is reduced by 5 percent of AGI exceeding \$75,000 (\$150,000 for married joint filers) until it is completely phased out, with the thresholds indexed for inflation after 2009. This credit will reduce the effective marginal tax rates of individuals earning less than \$8,100 and increase the EMTR for those in the phaseout range.

Senator Obama would exempt from income taxation all seniors with modified adjusted gross income (AGI plus untaxed Social Security benefits and tax-exempt interest) of less than \$50,000. The threshold would be the same for both single and married households and would not be indexed for inflation. We assume that the exemption from income taxes would phase out over a \$10,000 income range between \$50,000 and \$60,000.¹⁶ Taxpayers with modified AGI greater than \$60,000 would pay their full tax liability. Under Obama's plan, seniors with income less than \$50,000 with positive income tax liability under current law would see their EMTR go to zero whereas EMTRs for those with negative tax liability would not change. Seniors with income above \$60,000 would also have no change in EMTRs, but those in the phaseout range could see an increase or a decrease in rates. Since the \$50,000 threshold applies to modified AGI and not taxable income, it is difficult to generalize what happens to seniors' EMTRs as a result of this phaseout. Depending on their taxable income and statutory rate, effective marginal rates could either rise or fall.

Under current law, taxpayers can claim their home mortgage interest as an itemized deduction. This obviously provides no benefit to those who claim the standard deduction. Senator Obama would create a new refundable mortgage credit for non-itemizers equal to 10 percent of their mortgage interest, up to a maximum credit of \$800. This credit could change EMTRs for the few individuals who would benefit from

¹⁶ The phaseout would be structured so that the senior would pay a percentage of tax liability equal to the percentage of \$10,000 by which their modified AGI exceeds \$50,000. Thus a taxpayer with modified AGI of \$57,500 would pay \$7,500/\$10,000 or 75 percent of her tax liability under current law.

claiming the standard deduction and the mortgage interest credit instead of itemizing. Taking the standard deduction instead of itemizing could move the individual into a higher income tax bracket and thus increase her EMTR. This situation would only apply to the few taxpayers with itemized deductions just slightly above the standard deduction, mortgage interest adequate to make the credit worth enough to not itemize, and taxable income near the top of their tax bracket.

II. The Candidates' Proposals and Effective Marginal Tax Rates: Results from the TPC Tax Model

We will look at two measures of the impact of the candidates' plans on marginal tax rates. First, we will examine the number of households that would see an increase or decrease in their EMTR under the tax proposals. This will give an indication of the number of individuals who would face different economic incentives under the two plans. We will then examine the impact of the proposals on average EMTRs for the population as a whole and for the various income groups, weighted by the dollar amount of wages and salaries. This will give an indication as to whether wage and salary income, on average, faces a higher or lower marginal rate under the plans.

A. Senator Obama's Plan

In 2009, the Obama plan would reduce effective marginal tax rates for 61 percent of households and leave them unchanged for an additional 24 percent (table 1). Analysts have pointed out that the many phaseouts in Senator Obama's plan could increase EMTRs for certain households (Brill and Viard 2008). Those situations are relatively rare, however, since only 15 percent of households would experience an increase in their EMTR on wage and salary income.

Table 1

**Senator Obama's Tax Proposals of August 14, 2008, Advisers' Version
(No Payroll Surtax): Tax Units with a Change in Effective Marginal
Individual Income Tax Rates (EMTR) by Cash Income Level, 2009**

Cash Income Class (thousands of 2008 dollars) ^a	Tax Units (thousands) ^b	Percent of Tax Units With		
		Increase in EMTR	No Change in EMTR	Decrease in EMTR
Less than 10	17,204	0.5	2.0	97.5
10-20	24,101	14.5	10.3	75.2
20-30	19,493	13.1	32.2	54.7
30-40	14,384	24.7	32.5	42.9
40-50	11,749	18.8	37.4	43.8
50-75	21,662	14.0	39.8	46.3
75-100	14,107	22.7	22.1	55.2
100-200	19,712	13.0	17.9	69.2
200-500	5,636	20.4	30.8	48.8
500-1,000	989	62.4	21.6	16.0
More than 1,000	519	73.8	14.6	11.6
All	150,241	15.2	23.7	61.1

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).
Notes: Calendar year. Baseline is current law. Effective marginal rate is determined by calculating individual income tax and then adding \$1,000 to wages and recomputing individual income tax. The effective marginal rate is the resulting change in tax divided by \$1,000.

a. Tax units with negative cash income are excluded from the lowest income class but are included in the totals. For a description of cash income, see <http://www.taxpolicycenter.org/TaxModel/income.cfm>

b. Includes both filing and non-filing units but excludes those that are dependents of other tax units.

Only in the upper income classes—that include those making \$500,000 or more a year—would a majority of taxpayers face higher rates. At the very top of the income distribution, almost three-quarters of the 500,000 households making \$1 million or more a year would see an increase in their EMTR.¹⁷

Barring legislative action, almost all provisions in the 2001-06 tax cuts will expire at the end of 2010.¹⁸ Senator Obama has proposed extending the 2001-06 tax cuts for couples with adjusted gross income (AGI) less than \$250,000 (singles less than

¹⁷ Appendix tables B1 through B8 display the same information classified by cash income percentile rather than dollar level.

¹⁸ Provisions relating to select retirement savings incentives were made permanent by the Pension Protection Act of 2006 (P.L. 109-280).

\$200,000). The result is that measured against a current law baseline, the Obama proposal reduces marginal tax rates for a greater percentage of households in 2012 than in 2009. In addition, many more high-income taxpayers who faced an increase in their EMTR against current law in 2009 see no change in their EMTR against current law in 2012.

Table 2
Senator Obama's Tax Proposals of August 14, 2008, Advisers' Version
(No Payroll Surtax): Tax Units with a Change in Effective Marginal
Individual Income Tax Rates (EMTR) by Cash Income Level, 2012

Cash Income Class (thousands of 2008 dollars)	Tax Units (thousands)	Percent of Tax Units With		
		Increase in EMTR	No Change in EMTR	Decrease in EMTR
Less than 10	16,546	0.4	1.3	98.3
10-20	24,287	12.5	4.1	83.4
20-30	19,994	12.6	18.2	69.2
30-40	15,128	24.1	24.8	51.1
40-50	12,063	21.0	25.0	54.1
50-75	22,213	11.8	15.6	72.6
75-100	14,729	21.6	7.3	71.2
100-200	22,218	19.6	4.5	75.9
200-500	6,499	10.4	34.9	54.8
500-1,000	1,087	7.0	61.9	31.1
More than 1,000	546	2.3	76.0	21.6
All	156,009	14.6	13.2	72.2

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).
See notes to table 1.

Overall, 72 percent of households would face a lower EMTR in 2012 under the Obama proposal, and an additional 13 percent would see no change (table 2). As in 2009, about 15 percent of households would see an increase in their EMTR. Households in the \$30,000 - \$50,000 and \$75,000 to \$200,000 income ranges would be the most likely to face an increased EMTR. The vast majority of upper-income households would see no change in their EMTR. Only 2 percent of those making more than \$1 million would experience a higher marginal tax rate because the Obama plan would change 2012 tax law very little for that income group.

Both campaigns prefer to compare their policies not with current law, but rather with a baseline in which all of the 2001-06 tax cuts are made permanent and the

temporary increase in the AMT exemption amount—referred to as the AMT “patch”—is extended and indexed for inflation.¹⁹

Table 3
Senator Obama's Tax Proposals of August 14, 2008, Advisers' Version
(No Payroll Surtax), Tax Cuts Extended: Tax Units with a Change in
Effective Marginal Individual Income Tax Rates (EMTR) by Cash
Income Level, 2012

Cash Income Class (thousands of 2008 dollars)	Tax Units (thousands)	Percent of Tax Units With		
		Increase in EMTR	No Change in EMTR	Decrease in EMTR
Less than 10	16,546	0.4	2.0	97.6
10-20	24,287	14.2	10.3	75.5
20-30	19,994	12.5	30.5	57.0
30-40	15,128	23.6	33.3	43.1
40-50	12,063	21.0	39.3	39.6
50-75	22,213	14.7	46.1	39.3
75-100	14,729	28.9	38.6	32.5
100-200	22,218	12.0	59.4	28.5
200-500	6,499	15.0	70.4	14.6
500-1,000	1,087	56.4	32.5	11.1
More than 1,000	546	74.9	18.1	7.0
All	156,009	15.6	34.0	50.5

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).

Notes: Baseline assumes the provisions in the 2001-06 tax cuts scheduled to sunset at the end of 2010 are made permanent and the 2007 AMT patch is extended and indexed for inflation. Also see notes to table 1.

Measured against the tax cuts extended baseline, the Obama plan raises EMTRs on 16 percent of households, including a majority of those with incomes greater than \$500,000 (table 3). In all income classes under \$200,000, however, more households would see a decrease in their marginal tax rate than an increase. For those at the very bottom of the income scale—making \$30,000 or less—three quarters of all households would experience a decrease in their EMTR.

B. Senator McCain's Plan

If fully phased in for 2009, the McCain tax plan would lower marginal tax rates for one-fifth of households (table 4).²⁰ Virtually all of the other four-fifths of households would

¹⁹ Some members of the campaigns and other analysts have taken to calling this the “current policy” baseline.

see no change in their EMTR; only about 1 percent of households would face a higher rate.

Table 4

**Senator McCain's Tax Proposals as Described by Economic Advisers:
Tax Units with a Change in Effective Marginal Individual Income Tax
Rates (EMTR) by Cash Income Level, 2009**

Cash Income Class (thousands of 2008 dollars)	Tax Units (thousands)	Percent of Tax Units With		
		Increase in EMTR	No Change in EMTR	Decrease in EMTR
Less than 10	17,204	0.0	100.0	0.0
10-20	24,101	0.0	98.0	2.0
20-30	19,493	0.1	92.0	7.9
30-40	14,384	0.6	86.5	12.9
40-50	11,749	0.3	85.9	13.8
50-75	21,662	0.9	81.6	17.5
75-100	14,107	0.5	57.9	41.7
100-200	19,712	5.2	32.0	62.8
200-500	5,636	10.2	49.6	40.3
500-1,000	989	10.4	82.5	7.1
More than 1,000	519	1.6	95.2	3.3
All	150,241	1.4	78.7	19.9

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).
See notes to table 1.

McCain's increase in the dependent exemption reduces the marginal tax rate for some lower and moderate-income households because it moves the household from a higher to a lower statutory tax bracket. For households in the \$75,000 to \$500,000 income range, it is McCain's proposal to extend and augment the AMT patch that would cause the majority of taxpayers to face a lower EMTR.

²⁰ According to his economic advisors, Senator McCain's increase in the dependent exemption would be gradually phased in over time, beginning in 2010. The amount for each dependent would reach \$7,000 in 2016. We deflate that \$7,000 amount to 2009 dollars when determining the fully-phased-in impact in 2009.

Table 5

**Senator McCain's Tax Proposals as Described by Economic Advisers:
Tax Units with a Change in Effective Marginal Individual Income Tax
Rates (EMTR) by Cash Income Level, 2012**

Cash Income Class (thousands of 2008 dollars)	Tax Units (thousands)	Percent of Tax Units With		
		Increase in EMTR	No Change in EMTR	Decrease in EMTR
Less than 10	16,546	0.1	93.5	6.4
10-20	24,287	1.2	58.3	40.5
20-30	19,994	1.4	60.7	37.9
30-40	15,128	3.6	62.0	34.4
40-50	12,063	4.4	57.2	38.4
50-75	22,213	2.8	37.8	59.4
75-100	14,729	4.2	21.4	74.4
100-200	22,218	12.8	9.0	78.1
200-500	6,499	8.7	35.5	55.8
500-1,000	1,087	8.5	15.6	76.0
More than 1,000	546	3.7	11.3	84.9
All	156,009	4.1	48.0	47.9

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).
See notes to table 1.

Because Senator McCain would extend all of the individual income tax measures in the 2001-06 tax cuts, his proposal would reduce marginal tax rates for close to half of households when measured against a current law baseline in 2012 (table 5). The extension of AMT relief is a principal reason for the large percentage of taxpayers in the \$75,000 - \$200,000 income range who would experience a reduction in their EMTR. Similarly, because McCain would extend the reduction in the top two statutory rates and make permanent the repeal of Pease and PEP, more than three-quarters of those with incomes greater than \$500,000 would face a lower EMTR than under current law.

Senator McCain's proposal has a much more modest effect when compared to the tax cuts extended baseline. Since his proposed increase in the dependent exemption is the only aspect of his plan that is not already in the baseline, only 5 percent of households would see a decrease in their EMTR (table 6). The greatest impact is in the \$30,000-\$50,000 income range where the increase in the dependent exemption would reduce EMTRs for about 10 percent of households.

Table 6**Senator McCain's Tax Proposals as Described by Economic Advisers,
Tax Cuts Extended: Tax Units with a Change in Effective Marginal
Individual Income Tax Rates (EMTR) by Cash Income Level, 2012**

Cash Income Class (thousands of 2008 dollars)	Tax Units (thousands)	Percent of Tax Units With		
		Increase in EMTR	No Change in EMTR	Decrease in EMTR
Less than 10	16,546	0.0	100.0	0.0
10-20	24,287	0.0	97.9	2.1
20-30	19,994	0.2	92.6	7.2
30-40	15,128	0.4	88.3	11.2
40-50	12,063	0.5	90.0	9.5
50-75	22,213	0.6	93.6	5.8
75-100	14,729	0.8	96.5	2.7
100-200	22,218	3.1	92.2	4.7
200-500	6,499	4.5	94.8	0.7
500-1,000	1,087	0.3	98.2	1.4
More than 1,000	546	0.1	99.2	0.7
All	156,009	0.9	94.2	4.9

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).

Notes: Baseline assumes the provisions in the 2001-06 tax cuts scheduled to sunset at the end of 2010 are made permanent and the 2007 AMT patch is extended and indexed for inflation.

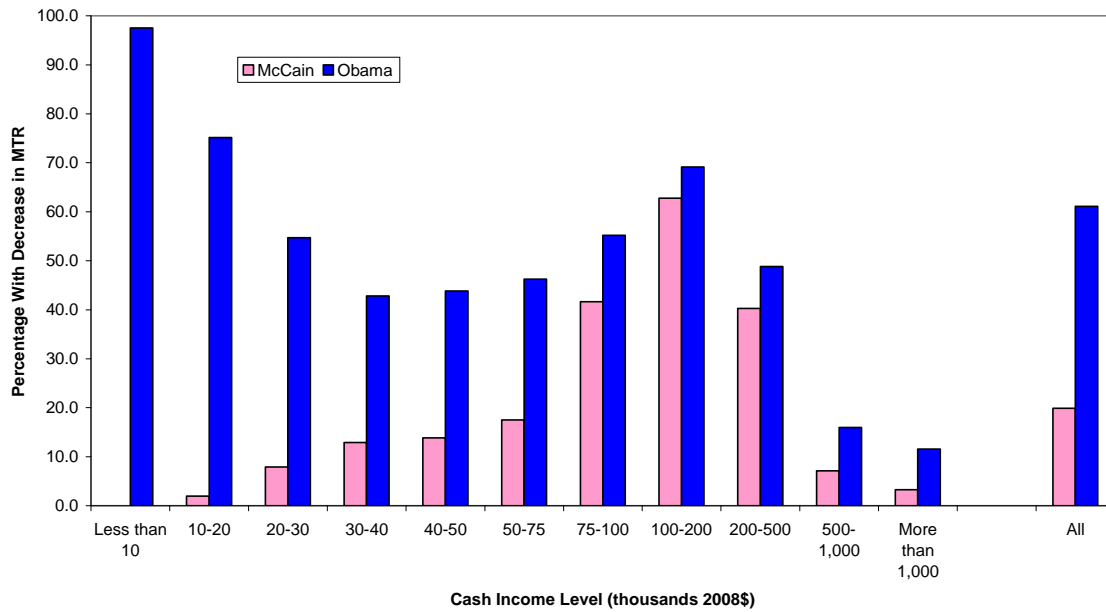
Also see notes to table 1.

Nearly 95 percent of all households would see no change in their EMTR. About 1 percent of households overall—and about 3 percent of those in the \$100,000 to \$200,000 income range—would actually experience an increase in their marginal tax rate. The individual AMT causes this seemingly anomalous result. McCain's proposal to increase the dependent exemption reduces the regular tax liability of those with dependents, but does not similarly reduce tentative AMT because the AMT denies personal exemptions. That moves more households onto the alternative system, which—contrary to conventional wisdom—most often imposes higher marginal rates than the regular tax. Some affected households—who would have been in the 15 or 25 percent regular tax bracket—find themselves in the 26 percent or 28 percent AMT brackets.

C. Comparison of the Two Plans

In 2009, Senator Obama's plan would reduce the effective marginal tax rate for far more households than would the McCain plan. This is true both overall, and for all income classes.

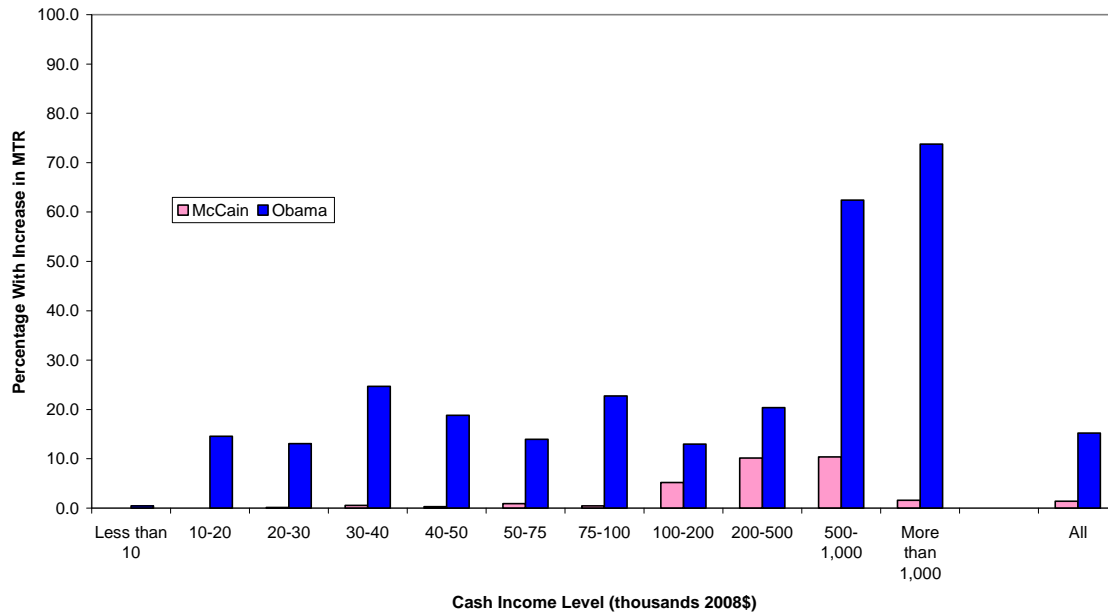
Figure 1. Tax Units With a Decrease in Effective Marginal Tax Rates Under the Presidential Candidates' Tax Proposals Relative to Current Law, 2009



Overall, the Obama plan would reduce the EMTR for 61 percent of households compared with only 20 percent for the McCain plan (figure 1). Obama’s new Making Work Pay credit would cause the number of individuals with lower marginal rates at the lower end of the income scale to approach 100 percent. Neither plan would reduce marginal rates for many households at the top of the income distribution.

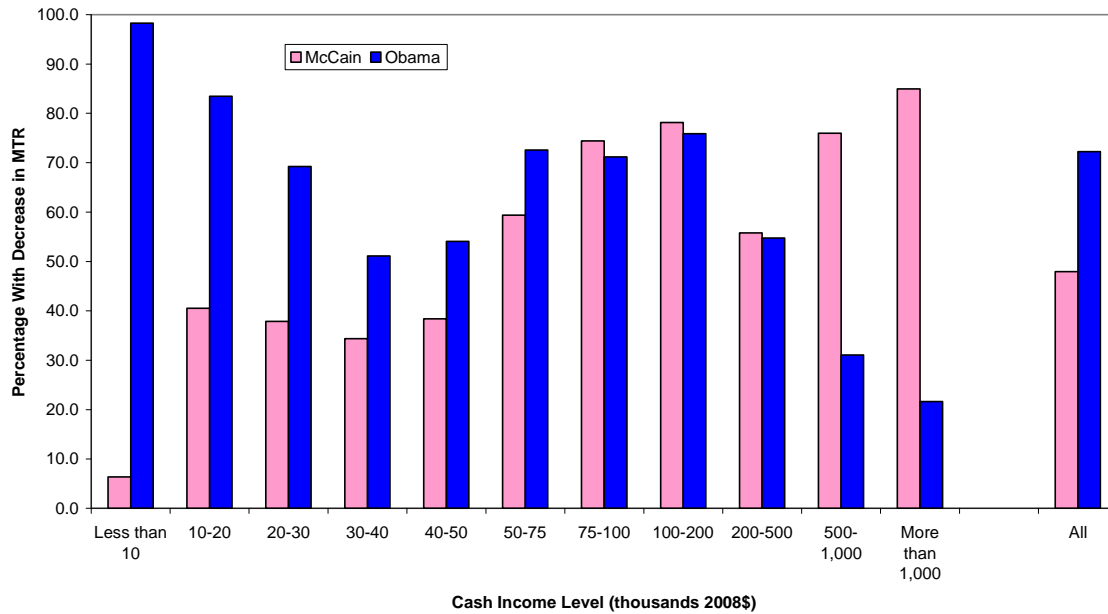
In fact, the Obama plan would raise marginal rates for about three-quarters of taxpayers making more than \$1 million whereas the McCain plan would leave rates unchanged for 95 percent of those taxpayers (figure 2). Overall, the Obama plan would raise EMTRs for 15 percent of taxpayers, compared with only 1 percent for the McCain plan.

Figure 2. Tax Units With an Increase in Effective Marginal Tax Rates Under the Presidential Candidates' Tax Proposals Relative to Current Law, 2009



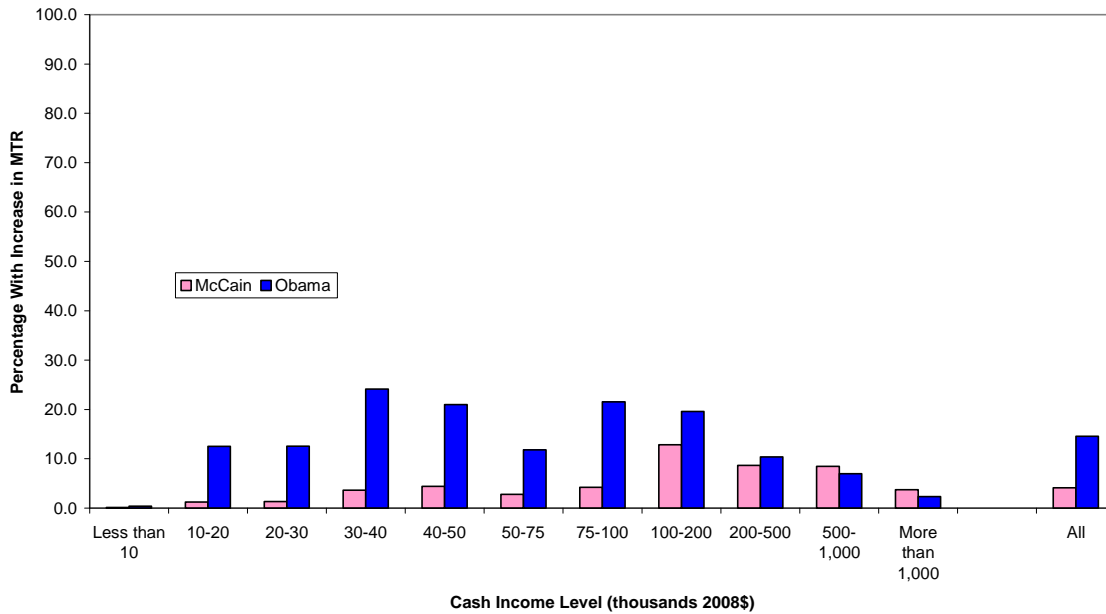
Both plans would reduce marginal rates for a greater percentage of households in 2012 than in 2009 when measured against current law: 72 percent for Obama and 48 percent for McCain (figure 3). But again, the greatest difference between the plans is at the low and high ends of the income scale.

Figure 3. Tax Units With a Decrease in Effective Marginal Tax Rates Under the Presidential Candidates' Tax Proposals Relative to Current Law, 2012



Obama’s new refundable Making Work Pay credit would reduce marginal rates for a large number of lower income households. Extending the 2001-06 tax cuts—as the McCain plan would do—provides little in the way of marginal rate reductions for those at the very bottom of the income scale. At the top of the income distribution, the McCain proposal would extend the lower statutory rates and the complete elimination of Pease and PEP, whereas Obama would allow the top two rates to revert to their pre-EGTRRA values of 36 and 39.6 percent. He would also reinstate Pease and PEP, albeit at a slightly higher threshold than under prior law. These differences are reflected in the fact that McCain’s proposal would lower EMTRs for 85 percent of households with income greater than \$1 million; the number for the Obama plan is just 22 percent.

Figure 4. Tax Units With an Increase in Effective Marginal Tax Rates Under the Presidential Candidates' Tax Proposals Relative to Current Law, 2012



Relative to current law in 2012, neither plan would raise marginal tax rates on a substantial number of households. Overall, the Obama plan would raise EMTRs on 15 percent of households; the McCain plan would raise rates on 4 percent. Most of those experiencing an increase in their EMTR under the Obama plan would be in the \$30,000 to \$50,000 income range; at those income levels, close to one-quarter of households would see a rise in their effective marginal rate.

D. Effect on Average Marginal Tax Rates

In order to assess the overall incentive effect of the presidential candidates' proposals, we next look at their impact on average effective marginal tax rates, weighted by the dollar value of wages and salaries.

Table 7
Average Effective Marginal Individual Income Tax
Rates by Cash Income Level, 2009

Cash Income Class (thousands of 2008 dollars)	Current Law	Obama Proposal	McCain Proposal
Less than 10	-4.2	-10.8	-4.2
10-20	3.7	3.5	3.3
20-30	14.2	14.4	13.2
30-40	18.0	19.0	16.8
40-50	17.7	18.1	16.4
50-75	20.2	19.9	18.6
75-100	22.2	19.8	18.5
100-200	27.4	26.0	25.1
200-500	32.4	32.7	32.0
500-1,000	30.5	37.7	30.8
More than 1,000	34.1	39.8	34.1
All	24.2	24.1	22.6

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).

Notes: Values are averages, weighted by the dollar value of wages and salaries. Also see notes to table 1.

Under current law in 2009, the earnings-weighted average effective marginal tax rate will be 24 percent (table 7). Average marginal rates differ greatly among income classes. Because of the earned income tax credit, households with income below \$10,000 will face, on average, a negative marginal rate of 4 percent. Average marginal rates generally rise with income but, because phase-ins and phaseouts and the AMT have differential impacts, the pattern is not smooth. For example, the average rate for those in the \$30,000-\$40,000 income range will be slightly higher than for those in the \$40,000-\$50,000 range. Primarily because of the AMT, the average marginal rate in the \$200,000-\$500,000 income class will be about 2 percentage points higher than the average for the \$500,000-\$1 million range.

Overall, the Obama plan would leave average effective marginal tax rates virtually unchanged at 24 percent whereas the McCain plan would lower the average EMTR to 23 percent. But the impact of both proposals would differ greatly by income. At the upper end of the income distribution—for taxpayers with incomes of \$1 million or more—the average EMTR under the Obama plan would rise from 34 to 40 percent but would not change under the McCain plan. At the very low end of the income scale—for those earning less than \$10,000—the Obama plan would reduce average EMTRs dramatically from -4 to -11 percent whereas the McCain plan would again have no effect.

The impact of the two plans on taxpayers in the middle would be more complicated. On average, McCain's plan would tend to lower effective marginal rates

more than the Obama plan. McCain's proposal does not contain the numerous phaseouts that the Obama plan uses to limit the benefits of tax credits to households with lower or moderate incomes. Nonetheless, the Obama plan would lower average EMTRs for those in the \$50,000-\$200,000 income class relative to current law.

Table 8
Average Effective Marginal Individual Income Tax Rates by Cash
Income Level, 2012

Cash Income Class (thousands of 2008 dollars)	Current Law	Tax Cuts Extended ^a	Obama Proposal	McCain Proposal
Less than 10	-3.6	-4.2	-10.4	-4.2
10-20	9.0	4.1	3.9	3.7
20-30	16.8	14.3	14.4	13.3
30-40	19.4	18.2	19.1	17.2
40-50	18.9	17.3	18.2	16.7
50-75	22.3	19.6	20.0	19.2
75-100	24.8	19.4	20.6	19.2
100-200	28.2	25.6	26.2	25.3
200-500	34.0	32.1	33.0	32.3
500-1,000	38.9	30.2	37.7	30.1
More than 1,000	40.1	33.7	39.8	33.7
All	26.8	23.5	24.8	23.2

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).

Notes: Values are averages, weighted by the dollar value of wages and salaries. Also see notes to table 1.

a. Assumes the provisions in the 2001-06 tax cuts scheduled to sunset at the end of 2010 are made permanent and the 2007 AMT patch is extended and indexed for inflation.

Under current law, most provisions in the 2001-06 tax cuts expire at the end of 2010. Thus, barring legislative action, average effective marginal rates will be substantially higher in 2012 than in 2009. Overall, the average EMTR will increase from 24 to 27 percent; for those making \$1 million or more, it will exceed 40 percent, up from 34 percent in 2009 (table 8). If Congress extends both the tax cuts and the AMT patch, the average EMTR will be only 24 percent in 2012.

Senator Obama's proposal would result in an average EMTR of 25 percent in 2012, slightly lower than current law but higher than if the tax cuts are extended. The primary reason for the increase compared to the tax cuts extended baseline is, again, Obama's proposed increase in the top two statutory tax rates and the reinstatement of Pease and PEP. Because the McCain proposal would extend all of the individual income tax components of the 2001-06 cuts and increase the dependent exemption, the average EMTR under his plan would be slightly lower than under the tax cuts extended baseline and significantly lower than under current law.

III. Conclusions

The tax proposals of both presidential candidates would alter effective marginal tax rates in complicated ways. Senator McCain's plan would—among other things—reduce statutory rates, increase the dependent exemption, and raise the AMT exemption level. In addition to also changing statutory rates and raising the AMT exemption, Senator Obama would modify existing deductions and tax credits and introduce several new ones. The numerous phase-ins and phaseouts that these credits entail would affect marginal rates, lowering them for some taxpayers and raising them for others.

Overall, the Obama plan would lower effective marginal tax rates for the majority of households. In 2009, only about 1 in 7 households would see an increase in their marginal rate. Only at the top of the income distribution—households making at least \$500,000 a year—would a majority of taxpayers face higher rates. Obama's plan would leave the average marginal rate on wages and salaries for the economy as a whole unchanged at 24 percent in 2009. In that same year, close to 80 percent of the population would see no change in their marginal rates under Senator McCain's plan and most other tax units would face lower rates; only about 1 percent of households would experience a marginal rate increase under the fully phased in McCain plan. Overall, Senator McCain's plan would reduce the average marginal tax rate on wages and salaries by about 1 percentage point, to 23 percent in 2009.

Senator Obama's proposal would result in an average marginal tax rate of 25 percent on wages and salaries in 2012, lower than under current law but higher than if the tax cuts are extended. Because Obama would leave the top two statutory rates at 36 and 39.6 percent and reinstate PEP and Pease, taxpayers with more than \$1 million in income would face an average marginal rate of 40 percent, 6 percentage points higher than under the McCain plan. Overall, because it would extend all of the individual income tax components of the 2001–06 cuts and increase the dependent exemption, the McCain plan would lower the average EMTR for all households slightly relative to a tax cuts extended baseline and significantly compared with current law.

References

- Brill, Alex and Alan D. Viard. 2008. "The Folly of Obama's Tax Plan," Washington DC: The American Online. <http://www.american.com/archive/2008/august-08-08/the-folly-of-obama2019s-tax-plan>.
- Burman, Leonard, Julianna Koch, Greg Leiserson, and Jeffrey Rohaly. 2008. "The Individual Alternative Minimum Tax (AMT): 12 Facts and Projections," Washington DC: The Urban Institute. <http://www.urban.org/url.cfm?ID=411707>.
- Burman, Leonard E., Surachai Khitatrakun, Greg Leiserson, Jeff Rohaly, Eric Toder, and Roberton Williams. 2008. "An Updated Analysis of the 2008 Presidential Candidates' Tax Plans," Washington DC: The Urban Institute. <http://www.urban.org/url.cfm?ID=411749>.
- Rohaly, Jeffrey, and Greg Leiserson. 2008. "The Individual Alternative Minimum Tax: Historical Data and Projections, Updated June 2008," Washington DC: The Urban Institute. <http://www.urban.org/url.cfm?ID=411703>.
- Slemrod, Joel. 1995. "Income Creation or Income Shifting? Behavioral Responses to the Tax Reform Act of 1986," American Economic Review 85 (2): 175-80.

Appendix A: Overview of the Tax Policy Center Microsimulation Model

A large-scale microsimulation model of the U.S. federal tax system generates the Tax Policy Center's revenue and distribution estimates. The model is similar to those used by the Congressional Budget Office (CBO), the Joint Committee on Taxation (JCT), and the Treasury's Office of Tax Analysis (OTA).

The model relies on data from the 2004 public-use file (PUF) produced by the Statistics of Income (SOI) Division of the Internal Revenue Service (IRS). The PUF contains 150,047 records with detailed information from federal individual income tax returns filed in the 2004 calendar year. We attach additional information on demographics and sources of income that are not reported on tax returns through a constrained statistical match of the public-use file with the March 2005 Current Population Survey (CPS) of the U.S. Census Bureau. That match also generates a sample of individuals who do not file income tax returns ("nonfilers"). The dataset combining filers from the PUF (augmented by demographic and other information from the CPS) and non-filers from the CPS allows us to carry out distribution analysis on the entire population rather than just the segment that files individual income tax returns.

The tax model has two components: a statistical routine that "ages" or extrapolates the 2004 data to create a representative sample of both filers and non-filers for future years; and a detailed tax calculator that computes the individual income tax liability for all filers in the sample under current law and under alternative policy proposals. The calculator also computes the employee and employer shares of payroll taxes for Social Security and Medicare.

Aging and Extrapolation Process

For the years from 2005 to 2019, we "age" the data based on Congressional Budget Office (CBO) forecasts and projections for the growth in various types of income, IRS figures on the growth in the number of tax returns, and Bureau of the Census data on the composition of the population. We use actual 2005 through 2006 data when they are available. A two-step process produces a representative sample of the filing and non-filing population in years beyond 2004. We first inflate the dollar amounts for income, adjustments, deductions, and credits on each record by their appropriate forecasted per capita growth rates. We use the CBO's forecast for per capita growth in major income sources such as wages, capital gains, and non-wage income (interest, dividends, social security income and others). We assume that most other items grow at CBO's projected per capita personal income growth rate. In the second stage of the extrapolation, we adjust the weights on each record using a linear programming algorithm to ensure that the major income items, adjustments, and deductions match aggregate targets. For years beyond 2004, we do not target distributions for any item; wages and salaries, for example, grow at the same per capita rate regardless of income.

Tax Calculator

Based on the extrapolated data set, we can simulate policy options using a detailed tax calculator that captures most features of the federal individual income tax system, including the alternative minimum tax (AMT). The model reflects major income tax legislation enacted through early 2008, including the Economic Stimulus Act of 2008, The Tax Increase Prevention Act of 2007, the Pension Protection Act of 2006 (PPA), the Tax Increase Prevention Reconciliation Act of 2005 (TIPRA), the Working Families Tax Relief Act of 2004 (WFTRA), the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA), the Job Creation and Worker Assistance Act of 2002, and the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA). Major provisions of EGTRRA and JGTRRA modeled include changes in marginal tax rates, the new 10 percent tax bracket, credits for children and dependent care, itemized deduction limitations, personal exemption phase outs, the AMT, education incentives, retirement and pension measures, and the marriage penalty provisions, which increased the standard deduction, 15 percent bracket, and earned income tax credit for married couples. We also model JGTRRA's changes to the taxation of dividends and capital gains.

Recent Model Enhancements

The Tax Policy Center recently completed a major update of its microsimulation model of the federal tax system. We incorporated more recent data by updating the tax model database from the 2001 to the 2004 public-use file (PUF) of tax returns produced by the IRS. We also performed a new statistical match of the new PUF with the March 2005 Current Population Survey. We updated the tax model's estate tax module to incorporate the latest data on estate tax filers from the Statistics of Income Division of the IRS and the retirement savings module to be consistent with the new 2004 data. We also expanded the retirement module to allow us to model the revenue and distributional implications of implementing automatic enrollment in IRAs and 401(k) retirement plans. This latest version of the tax model also includes refined imputations of itemized deductions, such as charitable contributions and home mortgage interest, for “nonitemizers” —people who claim only the standard deduction on their tax return. These imputations allow us to model the distribution and revenue implications of proposals to replace certain credits with deductions.

The latest version of our microsimulation model also includes a completely overhauled and expanded education module. We use data from the October 2003 and October 2004 CPS, as well as the National Postsecondary Student Aid Study (NPSAS) to impute student status, characteristics, and education expenditures onto the tax model database. This allows us to model current tax incentives for education—such as the HOPE and Lifetime Learning Credits and the deduction for higher education expenses—as well as to examine the revenue and distributional implications of combining or modifying these tax programs. We can also model current spending programs such as Pell Grants, and examine the revenue and distributional effects of changes to the Pell Grant rules.

Appendix B: Tables by Cash Income Percentile

Appendix Table B1

Senator Obama's Tax Proposals of August 14, 2008, Advisers' Version (No Payroll Surtax): Tax Units with a Change in Effective Marginal Individual Income Tax Rates (EMTR) by Cash Income Percentile, 2009

Cash Income Percentile ^{a,b}	Tax Units (thousands) ^c	Percent of Tax Units With		
		Increase in EMTR	No Change in EMTR	Decrease in EMTR
Lowest Quintile	39,102	7.8	6.5	85.7
Second Quintile	32,942	16.4	31.6	52.0
Third Quintile	30,075	18.5	38.1	43.4
Fourth Quintile	25,152	17.8	26.0	56.1
Top Quintile	22,287	19.5	20.1	60.4
All	150,241	15.2	23.7	61.1
Addendum				
80-90	11,264	9.5	17.4	73.0
90-95	5,439	22.2	16.2	61.6
95-99	4,454	28.9	32.5	38.7
Top 1 Percent	1,131	68.1	17.6	14.3
Top 0.1 Percent	114	81.2	11.6	7.3

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).

Notes: Calendar year. Baseline is current law. Effective marginal rate is determined by calculating individual income tax and then adding \$1,000 to wages and recomputing individual income tax. The effective marginal rate is the resulting change in tax divided by \$1,000.

a. Tax units with negative cash income are excluded from the lowest income class but are included in the totals. For a description of cash income, see

<http://www.taxpolicycenter.org/TaxModel/income.cfm>

b. The cash income percentile classes used in this table are based on the income distribution for the entire population and contain an equal number of people, not tax units. The breaks are (in 2008 dollars): 20% \$18,726, 40% \$37,258, 60% \$65,634, 80% \$110,346, 90% \$159,187, 95% \$224,851, 99% \$601,906, 99.9% \$2,906,959.

c. Includes both filing and non-filing units but excludes those that are dependents of other tax units.

Appendix Table B2

**Senator Obama's Tax Proposals of August 14, 2008, Advisers' Version
(No Payroll Surcharge): Tax Units with a Change in Effective Marginal
Individual Income Tax Rates (EMTR) by Cash Income Percentile, 2012**

Cash Income Percentile	Tax Units (thousands)	Percent of Tax Units With		
		Increase in EMTR	No Change in EMTR	Decrease in EMTR
Lowest Quintile	40,338	7.4	2.9	89.7
Second Quintile	34,253	16.9	20.8	62.3
Third Quintile	31,371	15.8	19.9	64.3
Fourth Quintile	26,273	18.0	7.1	74.9
Top Quintile	23,076	18.4	17.7	63.9
All	156,009	14.6	13.2	72.2
Addendum				
80-90	11,675	22.2	3.7	74.1
90-95	5,645	18.1	14.6	67.4
95-99	4,594	12.8	43.4	43.8
Top 1 Percent	1,162	3.3	71.4	25.3
Top 0.1 Percent	118	0.6	81.5	17.9

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).
See notes to table B1.

Appendix Table B3
Senator Obama's Tax Proposals of August 14, 2008, Advisers' Version
(No Payroll Surtax), Tax Cuts Extended: Tax Units with a Change in
Effective Marginal Individual Income Tax Rates (EMTR) by Cash
Income Percentile, 2012

Cash Income Percentile	Tax Units (thousands)	Percent of Tax Units With		
		Increase in EMTR	No Change in EMTR	Decrease in EMTR
Lowest Quintile	40,338	8.4	6.8	84.7
Second Quintile	34,253	16.6	31.7	51.8
Third Quintile	31,371	17.5	43.1	39.4
Fourth Quintile	26,273	21.6	44.7	33.7
Top Quintile	23,076	17.6	60.6	21.7
All	156,009	15.6	34.0	50.5
Addendum				
80-90	11,675	8.0	63.0	29.0
90-95	5,645	23.3	61.2	15.5
95-99	4,594	22.3	63.5	14.2
Top 1 Percent	1,162	68.5	22.7	8.8
Top 0.1 Percent	118	81.5	14.1	4.5

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).

Notes : Baseline assumes the provisions in the 2001-06 tax cuts scheduled to sunset at the end of 2010 are made permanent and the 2007 AMT patch is extended and indexed for inflation.

Also see notes to table B1.

Appendix Table B4

**Senator McCain's Tax Proposals as Described by Economic Advisers:
Tax Units with a Change in Effective Marginal Individual Income Tax
Rates (EMTR) by Cash Income Percentile, 2009**

Cash Income Percentile	Tax Units (thousands)	Percent of Tax Units With		
		Increase in EMTR	No Change in EMTR	Decrease in EMTR
Lowest Quintile	39,102	0.0	99.0	1.0
Second Quintile	32,942	0.3	90.3	9.4
Third Quintile	30,075	0.7	84.5	14.7
Fourth Quintile	25,152	1.0	60.0	38.9
Top Quintile	22,287	6.9	38.4	54.6
All	150,241	1.4	78.7	19.9
Addendum				
80-90	11,264	6.9	29.8	63.3
90-95	5,439	1.8	31.9	66.3
95-99	4,454	14.3	54.7	31.0
Top 1 Percent	1,131	3.0	92.0	5.1
Top 0.1 Percent	114	0.2	99.1	0.6

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).
See notes to table B1.

Appendix Table B5

**Senator McCain's Tax Proposals as Described by Economic Advisers:
Tax Units with a Change in Effective Marginal Individual Income Tax
Rates (EMTR) by Cash Income Percentile, 2012**

Cash Income Percentile	Tax Units (thousands)	Percent of Tax Units With		
		Increase in EMTR	No Change in EMTR	Decrease in EMTR
Lowest Quintile	40,338	0.8	72.7	26.5
Second Quintile	34,253	2.2	61.0	36.8
Third Quintile	31,371	3.6	46.5	49.9
Fourth Quintile	26,273	5.1	20.3	74.6
Top Quintile	23,076	12.6	17.3	70.1
All	156,009	4.1	48.0	47.9
Addendum				
80-90	11,675	17.6	7.1	75.3
90-95	5,645	4.3	24.8	70.9
95-99	4,594	11.9	35.2	52.9
Top 1 Percent	1,162	5.2	12.7	82.0
Top 0.1 Percent	118	1.8	10.0	88.3

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).
See notes to table B1.

Appendix Table B6

**Senator McCain's Tax Proposals as Described by Economic Advisers,
Tax Cuts Extended: Tax Units with a Change in Effective Marginal
Individual Income Tax Rates (EMTR) by Cash Income Percentile, 2012**

Cash Income Percentile	Tax Units (thousands)	Percent of Tax Units With		
		Increase in MTR	No Change in MTR	Decrease in MTR
Lowest Quintile	40,338	0.0	98.8	1.2
Second Quintile	34,253	0.3	90.8	8.9
Third Quintile	31,371	0.5	92.0	7.4
Fourth Quintile	26,273	0.9	94.8	4.2
Top Quintile	23,076	3.8	93.6	2.6
All	156,009	0.9	94.2	4.9
Addendum				
80-90	11,675	3.0	93.2	3.8
90-95	5,645	7.7	90.3	2.0
95-99	4,594	2.0	97.5	0.5
Top 1 Percent	1,162	0.2	98.4	1.4
Top 0.1 Percent	118	0.0	99.8	0.2

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).

Notes : Baseline assumes the provisions in the 2001-06 tax cuts scheduled to sunset at the end of 2010 are made permanent and the 2007 AMT patch is extended and indexed for inflation. Also see notes to table B1.

Appendix Table B7
Average Effective Marginal Individual Income Tax
Rates by Cash Income Percentile, 2009

Cash Income Percentile	Current Law	Obama Proposal	McCain Proposal
Lowest Quintile	1.0	-1.0	0.7
Second Quintile	15.7	16.2	14.6
Third Quintile	19.0	19.3	17.7
Fourth Quintile	22.5	20.2	19.1
Top Quintile	30.3	31.2	29.2
All	24.2	24.1	22.6
Addendum			
80-90	27.5	26.3	25.6
90-95	29.9	28.8	27.9
95-99	32.2	34.1	32.5
Top 1 Percent	33.2	39.3	33.2
Top 0.1 Percent	34.4	40.0	34.4

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).

Notes : Values are averages, weighted by the dollar value of wages and salaries. Also see notes to table B1.

Appendix Table B8
Average Effective Marginal Individual Income Tax Rates by Cash
Income Percentile, 2012

Cash Income Percentile	Current Law	Tax Cuts Extended ^a	Obama Proposal	McCain Proposal
Lowest Quintile	5.9	2.1	0.4	1.7
Second Quintile	18.1	16.2	16.7	15.3
Third Quintile	21.1	18.8	19.4	18.3
Fourth Quintile	25.3	20.6	21.4	20.2
Top Quintile	32.7	29.6	31.7	29.6
All	26.8	23.5	24.8	23.2
Addendum				
80-90	27.9	26.4	26.7	26.1
90-95	31.4	28.2	29.3	28.7
95-99	35.2	32.7	34.8	32.7
Top 1 Percent	39.8	32.8	39.4	32.7
Top 0.1 Percent	40.2	34.1	40.0	34.1

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-6).

Notes: Values are averages, weighted by the dollar value of wages and salaries. Also see notes to table B1.

a. Assumes the provisions in the 2001-06 tax cuts scheduled to sunset at the end of 2010 are made permanent and the 2007 AMT patch is extended and indexed for inflation.