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The Revenue and Incentive Effects of AB 910 and Alternative Reforms in Wisconsin

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Abstract

We evaluate the effects of the expansion in the standard deduction proposed recently in AB 910 by Wisconsin lawmakers. We find it would reduce taxes for about 2 million taxpayers and reduce state tax revenue by about $200 million, so the reduction per affected taxpayer is about $100. Low-to-middle-income taxpayers would benefit the most. Moreover, the expansion would reduce the effective marginal tax rates (MTR) and thus provide work incentive for some low-to-middle-income taxpayers, although it would also raise the effective MTR and thus reduce the work incentive for some relatively high-income taxpayers. We end the paper by considering some alternative revenue-equivalent reforms, with the finding that, by reducing a particular statutory rate and expanding the corresponding bracket at the same time, we could reduce the effective MTR and thus provide stronger work incentives for a large group of taxpayers.

1 Overview

On February 14, 2020, Republican lawmakers in Wisconsin introduced Assembly Bill 910 (AB 910) and Senate Bill 821 (SB 821), two companion bills that would reduce the individual income tax, provide a property tax exemption and reduce the level of state general obligation debt.

One specific proposal is to expand the standard deduction applicable to state individual income tax. In this brief, we discuss how the proposed expansion would affect state tax revenue and the effective marginal tax rate (MTR), one of the most important components for behavior in evaluating tax systems.

Focusing on tax year 2020, we find the expansion would reduce the tax for about 2 million tax filers and reduce state tax revenue by about $200 million, so the reduction per affected tax filer is about $100. Close to 100% of tax filers with income between $40,000 and $100,000 would see a tax reduction, and the average reduction is around $125, higher than both low- and high-income tax filers. The reduction in state tax would raise the after-tax income by about 0.24% per affected tax filers, and the increase is decreasing in income, ranging from 0.33% for tax filers with income below $25,000 to 0.06% for tax filers with income above $100,000.

Using married jointly filers with two children as an example, we show that the expansion would reduce the effective MTR and thus provide work incentive for some low-to-middle-income taxpayers. However, it would also raise the effective MTR and thus reduce the work incentive for some relatively high-income taxpayers.

We then consider three alternative reforms to the statutory rates. To be comparable with the expansion in AB 910, we construct the reforms such that each would reduce the state tax revenue by a similar amount to the reductions induced by the expansion in AB 910. Given this restriction, we find that (1) a reform of the statutory rates across the board would not have a large effect on the effective MTR and thus the work incentive because smaller changes are needed when more rates are affected, (2) reforms targeted at a specific statutory rate could significantly affect the work incentive of a small group of taxpayers, and (3) by reducing a particular statutory rate and expanding the corresponding bracket at the same time, we could reduce the effective MTR and thus provide work incentive significantly for a large group of taxpayers.

The Expansion

The sliding scale standard deduction in Wisconsin varies both by filing status and over time. Figure 1 plots the schedule for married joint filers for tax year 2020 under the current tax code and the expansion proposed in AB 910. The schedules and proposed expansions for other tax filers are similar and can be found here.

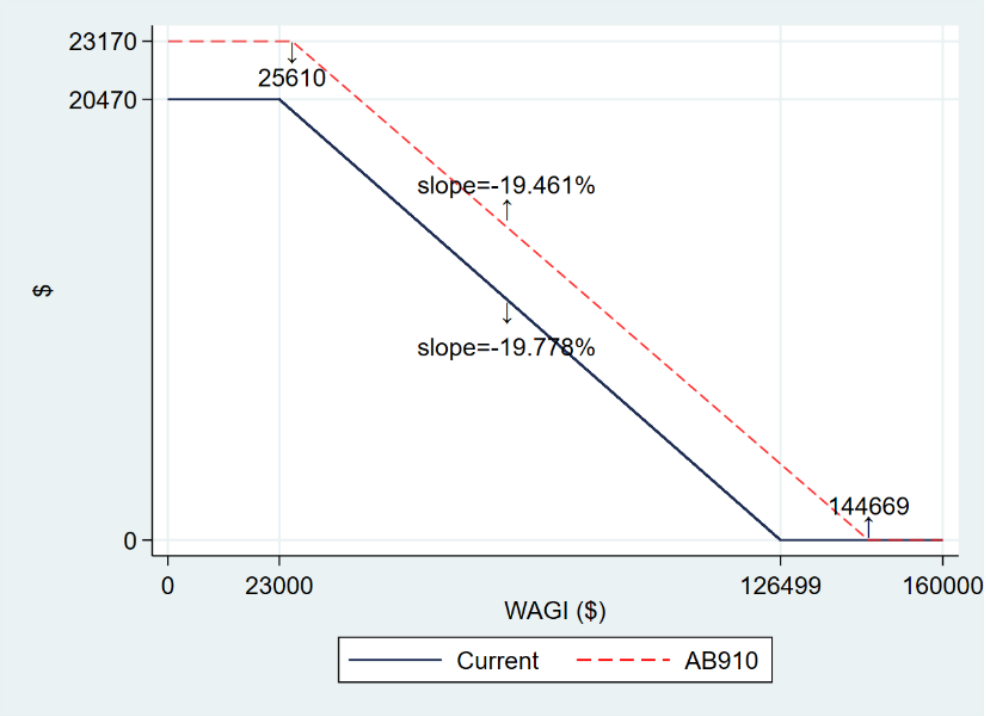

Figure 1. The Standard Deduction: Married Filing Jointly

Under the current tax code, married joint filers with Wisconsin adjusted gross income (WAGI) below $23,000 could claim the maximum deduction of $20,470. The standard deduction then phases out at a rate of 19.778%. That is, it decreases by 19.778 cents for each dollar increase in WAGI. Finally, the standard deduction vanishes for married joint filers with WAGI above $126,499.

Under AB 910, the maximum deduction would be raised to $23,170, and more households, including those with WAGI between $23,000 and $25,610, would be eligible for the maximum deduction. Moreover, the standard deduction would phase out at a slightly slower rate of 19.461%. As a result, more households, including those with WAGI between $126,499 and $144,699, would be eligible for the standard deduction.

To understand the effect of this expansion, we first describe briefly how the standard deduction fits into the state individual income tax in Wisconsin. For each tax filer in Wisconsin, the starting point of state individual income tax calculation is WAGI, the gross income adjusted for income and expenses that are exempt from state individual income tax. Not all WAGI is taxable. Specifically, taxable income is determined by subtracting personal exemptions and the standard deduction from WAGI. Taxable income is then multiplied by the applicable tax rates to arrive at gross tax liability. Finally, net tax liability is determined by subtracting nonrefundable and refundable tax credits from gross tax liability.

Other things equal, an increase in the standard deduction reduces taxable income and in turn the net tax liability. Consequently, the proposed expansion is expected to reduce the

tax liability of individual household and in turn the total tax revenue for the state. The question is by how much.

The Revenue and Distributional Effects

To estimate how the expansion would affect the state tax revenue, we use micro data from the Annual Social and Economic Supplement (ASEC) of the Current Population Survey and our own tax calculator. In addition to personal exemptions and the standard deduction, our tax calculator also accounts for itemized deductions, nonrefundable credits like the married couple tax credit, and refundable credits like the earned income tax credit (EITC). The same calculator has been used for other CROWE reports like this one, which describes the calculator in more detail.

The following table reports our estimates. Overall, we estimate the expansion would reduce state income tax for about 2 million tax filers (about 64.7% of all tax filers) and reduce the state tax revenue by about $200 million. The reduction per affected tax filer is about $100, and our estimates are very close to those reported by the Wisconsin Legislative Fiscal Bureau.

Looking across the income distribution, we find middle income tax filers with WAGI between $40,000 and $100,000 would benefit most from the expansion. Close to 100% of tax filers in this income range would receive a tax reduction, and the average amount of reduction is about $125. Both numbers are higher than other income groups.

Table 1. Revenue and Distributional Effects of the Expansion in AB 910

	Taxpayers with a Decrease					
WAGI class	Count	Amount of Decrease ($)	Average Decrease ($)	% Change in After Tax Income	Count of All Returns	% of All Returns
Less than $25,000	321,025	-19,176,452	-60	0.33	1,171,088	27.4
$25,000 - $40,000	515,889	-52,138,713	-101	0.32	528,812	97.6
$40,000 - $70,000	616,758	-76,868,918	-125	0.25	616,758	100.0
$70,000 - $100,000	320,927	-40,544,716	-126	0.16	324,720	98.8
Over $100,000	283,027	-17,358,045	-61	0.06	540,115	52.4
Total	2,057,627	-206,086,843	-100	0.24	3,181,493	64.7
LFB Total	2,030,662	-214,580,836	-106	N/A	3,169,428	64.1

On the other hand, low income tax filers benefit the most in terms of the percentage increase in after-tax income, which is about 0.33% for tax filers with WAGI below $25,000. This decreases gradually to about 0.06% for tax filers with WAGI above $100,000. Overall, affected tax filers would see a 0.24% increase in their after-tax income on average.

The Effect on the Effective MTR

In evaluating tax systems, one of the most important components for behavior are the marginal tax rates. A marginal tax rate (MTR) is the tax rate incurred on an additional dollar of income. MTR is an important parameter of individual income tax structure

because, by reducing the amount of disposal income that an individual could receive from gaining additional income, a higher MTR reduces the incentive to work or invest, and thus could reduce labor supply and overall economic activity. While average tax rates determine a household's overall tax bill and thus the net impact of taxes on their total income, marginal rates matter for decisions on the margin.

In practice, what matters is not the statutory MTR, which is specified by law, but rather the effective MTR which captures the net tax impact of an additional dollar earned after all credits and deductions are accounted for. Since many credits and deductions apply over different income ranges, sometimes with a phase-in and phase-out, the effective MTR tends to differ from the statutory MTR. Consequently, changes in deductions and tax credits could affect the effective MTR and, in turn, economic activities even if the statutory rate remains unchanged.

In a previous CROWE report, we have evaluated the tax liability and effective marginal tax rates for households in Wisconsin, and how they would change in response to two tax proposals at that time. We follow the same strategy to evaluate the effect of the expansion illustrated in Figure 1.

The following table reports the statutory MTR for single and married joint filers in Wisconsin for tax year 2020, which depends on filing status and taxable income. Assuming an inflation rate of 2%, we obtain the cutoff values for each bracket by multiplying the corresponding values for tax year 2019 by a factor of 1.02.

Table 2. Individual Income Tax Rates In Wisconsin

	Taxable Income Brackets ($)	
Marginal Tax Rate (%)	Single	Married Filing Jointly
3.86	0 – 12,000	0 – 15,990
5.04	12,000 – 23,990	15,990 – 31,990
6.27	23,990 – 264,130	32,020 – 352,180
7.65	264,130+	352,180+

While the statutory MTR is the derivative/slope of gross tax liability with respect to taxable income, we define the effective MTR as the derivative/slope of net tax with respect to WAGI. The two are different from each other due to personal exemptions, the standard deduction and various tax credits.

Using married joint filers with two children as an example, figure 2 reports how the expansion of the standard deduction proposed in AB 910 would affect the effective MTR. In addition to personal exemptions and the standard deduction, our tax calculator, and thus the effective MTR, accounts for one nonrefundable credit, the married couple credit that depends on the WAGI of the second earner for married joint filers, and one refundable credit, the state EITC which is proportional to the federal EITC. We focus on

WAGI between $0 and $160,000 because households with WAGI above $160,000 are not affected by the expansion.

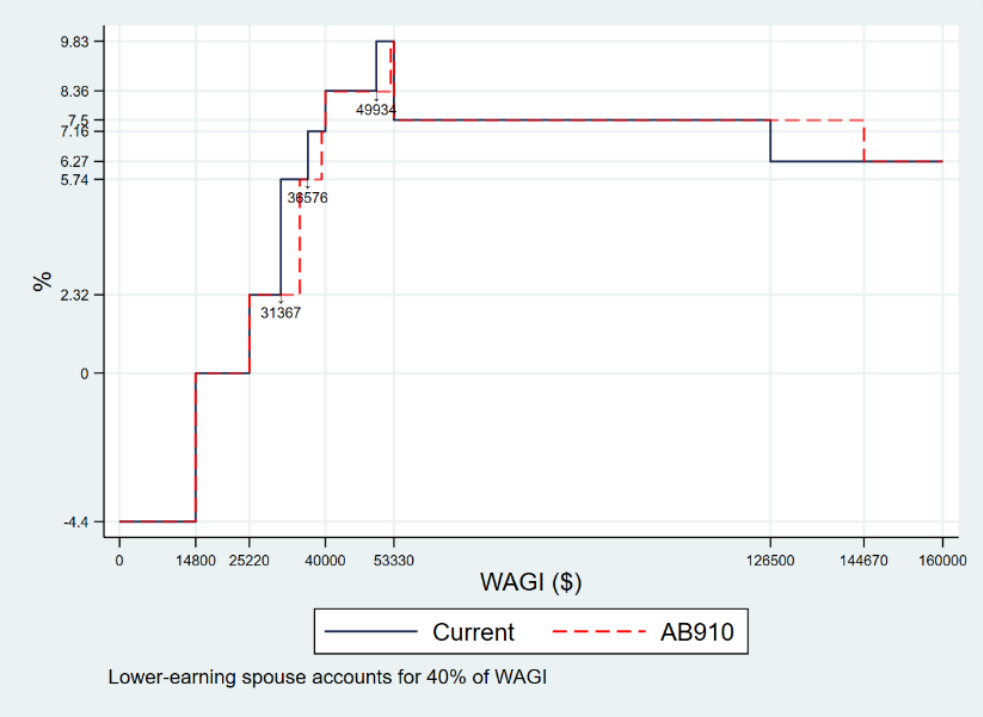

Figure 2. Effective MTR for Married Joint Filers with Two Children: Tax Year 2020

To understand the effect of the expansion, we first describe briefly how the effective MTR varies with WAGI under the current tax code, as shown by the navy curve.

For WAGI below $14,800, the net tax is negative and decreases at a rate of 4.4%, implying an effective MTR of -4.4%. This happens because (1) there is no tax liability due to personal exemptions and the standard deduction, and (2) each additional dollar of WAGI raises disposable income by $1.044 with the 4.4 cents coming from the state EITC.

For WAGI between $14,800 and $25,220, the net tax is flat at -$651.2 because of state EITC, and the effective MTR is zero. Although the statutory rate jumps from zero to 3.86% by the end of this phase, it's not effective yet because the resulting gross tax is less than the married couple credit.

For WAGI between $25,220 and $31,367, the effective MTR is 2.32%, the rate at which state EITC phases out. The statutory rate of 3.86% is still ineffective because of the married couple credit.

For WAGI between $31,367 and $36,576, the effective MTR is about 5.74%. The statutory rate of 3.86% is finally effective. The phase-out of the standard deduction raises

the rate to about 4.62%. The phase-in of the married couple credit brings it down to about 3.42%. Finally, the phase-out of state EITC raises it to 5.74%.

For WAGI between $36,576 and $40,000, the effective MTR is about 7.16%. Relative to the previous phase, the statutory rate increases from 3.86% to 5.04%. The phase-out of the standard deduction raises the rate to about 6.04%. The phase-in of the married couple credit brings it down to about 4.84%. Finally, the phase-out of state EITC raises it to about 7.16%.

For WAGI between $40,000 and $49,934, the effective MTR is about 8.36%, 1.2 percentage points higher than the last phase because the married couple credit is now flat. Specifically, the statutory rate is still 5.04%. The phase-out of the standard deduction raises the rate to about 6.04%, and the phase-out of state EITC raises it further to about 8.36%.

For WAGI between $49,934 and $53,330, the effective MTR reaches its highest level of about 9.83%. Relative to the last phase, the statutory rate increases to 6.27%. The phase-out of the standard deduction raises the rate to about 7.51%, and the phase-out of state EITC raises it further to about 9.83%.

For WAGI between $53,330 and $126,500, the effective MTR is about 7.51%, 2.32 percentage points lower than the previous phase because the state EITC now exhausts. The statutory rate is 6.27%, and the phase-out of the standard deduction raises the effective rate to about 7.51%,

Finally, for WAGI above $126,500, the standard deduction phases out completely, and the effective MTR is now equal to the statutory rate, which is equal to 6.27% for WAGI below $160,000.

In summary, in addition to the direct effect of the statutory MTR, the phase-in of tax credits reduces the effective MTR, while the phase-out of both the standard deduction and tax credits raises the effective MTR. For low income households with WAGI below $31,367, the effective MTR is lower than the statutory MTR due to the phase-in of state EITC and the married couple credit. For middle income households with WAGI between $31,367 and $126,500, the effective MTR is higher than the statutory MTR because of the phase-out of tax credits and the standard deduction. For high income households with WAGI above $126,500 who are not eligible for either the standard deduction or any of the two credits, the effective MTR is equal to the statutory MTR.

The proposed expansion has three effects. First, the increase in the deduction amount reduces the taxable income and in turn the statutory MTR faced by some households. For example, under the current tax code, households with WAGI between $49,934 and $52,691 face a statutory rate of 6.27%. With more standard deduction under the proposed expansion, their taxable income would decrease and bring them down to the bracket with a statutory rate of 5.04%. This decrease in the statutory rate explains the significant decrease in the effective MTR faced by these households, and it almost eliminates the top MTR of 9.83%. Similar forces could explain the significant decrease in

the effective MTR faced by households with WAGI between $31,367 and $35,027 and those with WAGI between $36,576 and $39,297.

Second, the smaller phase-out rate under the expansion reduces the effective MTR slightly for all households with WAGI between $35,027 and $126,499. For example, for households between $53,330 and $126,499, the effective MTR under the current tax code is 7.51%, and it is 7.49% under AB 910. Because this effect is very small, reducing the effective MTR only by about 0.02 percentage point, it is barely visible in the graph.

Finally, as the phase-out range widens, the expansion raises the effective MTR for households with WAGI between $126,500 and $144,670.

Overall, the expansion has no effect on the effective MTR faced by low income households with WAGI below $31,367, reduces the effective MTR faced by middle income households with WAGI between $31,367 and $126,500, and raises the effective MTR faced by relatively high-income households with WAGI between $126,500 and $144,670.

It's important to note that a higher MTR does not mean more tax. In particular, while the expansion would raise the effective MTR for some relatively high-income households, it would not raise the tax burden of any household. To see this, figure 3 plots the net tax as a percentage of WAGI. Clearly, the expansion would raise the tax for no one. Instead, it would reduce the tax burden of all married joint filers with two children whose WAGI is between $31,367 and $146,499,

Figure 3. Effect of the Expansion on Net Tax: Married Joint Filers with Two Children

To see it from another angle, figure 4 plots the tax reductions induced by the expansion for single filers and married filing jointly with two children. Again, the expansion would not raise the tax burden for anyone. Instead, it would reduce the tax burden for single filers with WAGI between $11,751 and $120,359, with the largest reduction of about $100 accruing to those with WAGI between $35,000 and $70,000. Similarly, it would reduce the tax burden for married filing jointly with two children whose WAGI are between $31,367 and $144,669, with the largest reduction of over $200 accruing to those with WAGI between $53,000 and $128,000.

Figure 4. Tax Reductions under the Expansion

Alternative Reforms

We have shown that the expansion would reduce the effective MTR and thus raise the work incentive for some low to middle income tax filers. However, it could not eliminate the top rate of over 9.8% facing married joint filers with WAGI around $50,000 completely, neither would it have any effect on the second highest rate of around 8.36% facing married joint filers with WAGI between $40,000 and $50,000. What is even worse is that it would raise the effective MTR and thus reduce the work incentive of those with WAGI between $126,500 and $144,670. This suggests that it's useful to consider alternative reforms with similar revenue effect but potentially larger negative effect on MTR.

As mentioned above, the high effective MTRs of 8.36% and 9.83% faced by married jointly filers with two children and WAGI between $40,000 and $53,330 arises from the

combination of (1) the relatively high statutory rate of 5.04% and 6.27%, (2) the flattening of the married couple credit, (3) the phase-out of both EITC and the standard deduction. Extending the phase-in range of the married couple credit and erasing the phase-out of EITC and the standard deduction would certainly help reduce the high effective MTR. We will explore them further in the future. Here we consider three alternative reforms to the statutory rate. To make them comparable with the expansion proposed in AB 910, we construct the tax parameters so that each alternative would reduce state tax revenue by about $206 million, our estimated revenue effect of the expansion in AB 910. The resulting parameters and the revenue and distributional effects are reported in table 3.

Table 3. Alternative Reforms

Current	Reform 1	Reform 2	Reform 3
3.86	-0.13=3.73	3.86	3.86
5.04	-0.13=4.91	-0.84=4.2	-0.47=4.57
6.27	-0.13=6.14	6.27	6.27
7.65	-0.13=7.52	7.65	7.65
			And raising the upper bound of the second bracket by 12.72%. Singles: $23,990 to $27,040. Married filing jointly: $31,990 to $36,060
Revenue effect	$-204 m	$-207 m	$-208 m
By WAGI: % of taxpayers receiving a tax reduction, average reduction $ among those receiving a reduction, and % increase in after-tax income among those affected			
Less than $25,000	(28,-9,0.04)	(3,-9,0.04)	(3,-5,0.02)
$25,000 - $40,000	(97,-26,0.08)	(83,-70,0.22)	(83,-51,0.16)
$40,000 - $70,000	(100,-55,0.11)	(100,-107,0.21)	(100,-110,0.22)
$70,000 - $100,000	(100,-99,0.12)	(100,-122,0.15)	(100,-131,0.16)
Over $100,000	(100,-225,0.13)	(100,-130,0.09)	(100,-139,0.10)
Total	(73,-88,0.1)	(62,-106,0.17)	(62,-106,0.16)

In the first reform, we reduce each of the four statutory rates by 0.13 percentage point. This would reduce the state tax revenue by about $204 million. Overall, 73% of taxpayers would receive a tax reduction of about $88 on average and see a 0.1% increase in their after-tax income. Only those with no tax liability under both the current tax code would not benefit from this reform, the fraction of which is higher among low income tax filers and zero among high income tax filers. Because high income tax filers have taxable income falling into more of the four tax brackets than low income tax filers, they receive more tax reduction and a larger increase in after-tax income on average.

As the reductions in the statutory rates are small, so is the effect of this reform on the effective MTR. The implication is that, given a targeted revenue effect, a reform of the

statutory rates across the board would not have a large effect on the effective MTR and thus the work incentive.

As most of the married jointly filers facing the two highest MTRs of 8.36% and 9.83% are subject to the second statutory rate of 5.04%, in the second reform, we reduce this statutory rate by 0.84 percentage point to 4.2%. This would reduce the state tax revenue by about $207 million. Overall, 62% of taxpayers would receive a tax reduction of about $106 on average and see a 0.17% increase in their after-tax income. These numbers are close to our estimates for the expansion in AB 910 reported previously. In addition to tax filers without any taxable income, those with all taxable income falling into the bottom bracket would also not benefit from this reform, the fraction of which again is higher among low income tax filers and zero among high income tax filers. High income tax filers receive more reductions on average because they have more taxable income falling into the second bracket, but the percentage increase in after-tax income is largest for low-to-middle-income tax filers.

By construction, the second highest effective MTR of 8.36% would be reduced significantly by this reform. However, it has no effect on the highest effective MTR of 9.83% because those taxpayers face the third statutory rate of 6.27% instead of the second one targeted by this reform. The implication is that reforms targeted at a specific statutory rate could significantly affect the work incentive of a small group of taxpayers.

Finally, in the third reform, we expand the second bracket so that it would cover the married joint filers facing the highest MTR of 9.83% who are subject to the third statutory rate of 6.27% under the current tax code. This requires us to raise the upper bound of the second bracket by about 12.72% to about $36,060 for married joint filers. To be consistent, we also raise the upper bound of the second bracket for other filers by 12.72%. Given this, we then adjust the second statutory rate such that together with the expansion of the bracket, this reform would reduce the state tax revenue by about $-206 million. We end up with a statutory rate of 4.57%, 0.47 percentage points lower than the current value of 5.04%.

The revenue and distributional effects of this reform are extremely close to the corresponding effects of the second reform discussed above. This is not surprising because both are about the second statutory rate. However, by expanding the bracket, this reform could reduce the effective MTR and thus provide work incentive for a larger group of taxpayers. Figure 5 shows how this reform affects the effective MTR of married jointly filers with two children. The solid curve is for the current tax code and thus the same as the one in figure 2. The dash curve plots what the effective MTR would be under this third reform.

Clearly, this reform is effective in bringing down the two highest MTRs under the current tax code. Instead of 8.36% and 9.83%, taxpayers with WAGI between $40,000 and $53,330 would face a much lower marginal rate of about 7.79%. Taxpayers with WAGI just below $40,000 would also see a reduction in their marginal rate.

These reductions in the effective MTR for low-to-middle income taxpayers are similar to the effects of the expansion proposed in AB 910 shown in figure 2. However, there are two significant differences. First, while this reform can erase the two highest MTRs completely and reduce them significantly, the expansion in AB 910 could only reduce the top rate of 9.83% partially for some taxpayers, and it has no little effect on the second highest rate of 8.36%. Secondly, while the expansion in AB 910 would raise the effective MTR for some relatively high-income taxpayers, this reform would not raise the effective MTR for anyone. These comparisons suggest that this reform may be preferred if providing work incentive is one of the main goals of tax reduction.

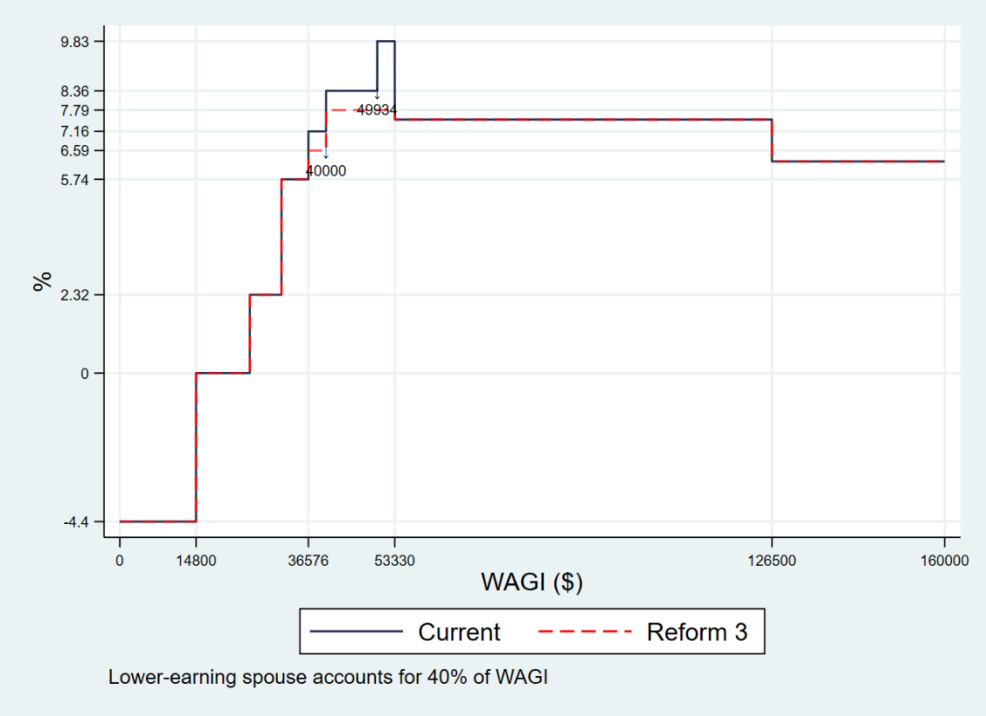

Figure 5. Reform 3 and the Effective MTR for Married Filing Jointly with Two Children

Summary

We evaluate the effects of the expansion in the standard deduction proposed recently in AB 910 by Wisconsin lawmakers. We find it would reduce taxes for about 2 million taxpayers and reduce state tax revenue by about $200 million, so the reduction per affected taxpayer is about $100. Low-to-middle-income taxpayers would benefit the most. Moreover, the expansion would reduce the effective marginal tax rates (MTR) and thus provide work incentive for some low-to-middle-income taxpayers, although it would also raise the effective MTR and thus reduce the work incentive for some relatively high-income taxpayers. We end the paper by considering some alternative revenue-equivalent reforms, with the finding that, by reducing a particular statutory rate and expanding the corresponding bracket at the same time, we could reduce the effective MTR and thus provide stronger work incentives for a large group of taxpayers.