



APPENDIX: Deadweight Loss Due to Taxation

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“Deadweight Loss” due to taxation is the loss in economic activity due to a tax, above and beyond the amount of the tax actually collected. It is the result of changes in behavior by individuals and businesses in response to the existence of the tax.

In order to estimate the impact of the Medicaid expansion, we must account for the deadweight loss of the taxes necessary to pay for it. In this paper, we consider only the taxes necessary to pay for the federal spending, which accounts for the overwhelming majority of the expansion spending. The IRS publishes the amount of federal tax collected in each state, broken down by the type of tax. Overall, in 2010, 11.85 percent of federal tax revenue was from taxes on business income (corporate profits), 85.29 percent was from taxes on personal income (including FICA taxes), 2.01 percent was on excise taxes (e.g., tobacco), and 0.84 percent was from estate and gift taxes.

The extent to which each tax is affected by deadweight loss can differ. For corporate taxes, Austan Goolsbee provides a range estimate of 5 to 10 percent of revenue.¹ For individual taxes, Martin Feldstein calculated an estimate of 32.2 percent of revenue.² We applied this estimate to excise taxes as well. There is a naïve theoretical argument that there should be no deadweight loss due to estate and gift taxes. We do not find that argument persuasive, and note that estimates of the deadweight loss due to the estate tax have a lower bound of 1.8 percent.³ This debate is outside the scope of this paper, and out of an abundance of caution—and because the total revenue due to estate taxes is so small—we have ignored the deadweight loss due to estate and gift taxes. This does not significantly affect the results.

For each state, a state-specific deadweight loss was calculated as a weighted average of the deadweight losses for each type of tax, based on the relative shares of federal tax of each type collected from that state. The economic activity and job estimates in this paper are based on these state-specific estimates.

For the benefit of readers who might wish to make alternative assumptions, we also calculated each state's “break-even” deadweight loss, expressed as a percentage of tax revenue. That is, the deadweight loss at which the state is on the border between being a “net winner” and a “net loser” of economic activity due to the Medicaid expansion. If a state's actual DWL is above this figure, the state sustains a net loss. Because actual deadweight loss can never be negative, a state with a negative number in this column

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- 1 Austan Goolsbee, “Taxes, organizational form, and the deadweight loss of the corporate income tax,” *Journal of Public Economics*, **69**(1998), pp.143-152. The difference between the high and low end of the range did not substantially affect the results.
 - 2 Martin Feldstein, “Tax Avoidance and the Deadweight Loss of the Income Tax,” *The Review of Economics and Statistics*, **81**:4 (Nov., 1999), pp. 674-680.
 - 3 Douglas Holtz-Eakin and Donald Marples, “Distortion Costs of Taxing Wealth Accumulation: Income versus Estate Taxes,” National Bureau of Economic Research, Working Paper 8261, April 2001.



loses jobs and economic activity regardless of the particular assumptions made. Overall, 19 states (plus D.C.) have negative break-even percentages, and 11 have break-even percentages between 0 and 30, indicating they are likely to sustain a loss.

Table A: State Deadweight Loss Estimates

State	State Estimated Deadweight Loss		State Break-Even Deadweight Loss Percentage*
	Percent of Revenue	Dollars	
Alabama	30.72%	-1199 mil	128.27%
Alaska	31.20%	-287 mil	13.22%
Arizona	29.93%	-1860 mil	-43.83%
Arkansas	24.73%	-1370 mil	53.35%
California	28.43%	-15240 mil	-126.62%
Colorado	29.70%	-2288 mil	-63.13%
Connecticut	29.37%	-2535 mil	-8.77%
Delaware	23.77%	-714 mil	-4.48%
D.C.	31.52%	-1138 mil	-79.62%
Florida	30.45%	-6651 mil	29.90%
Georgia	29.17%	-3461 mil	25.14%
Hawaii	30.04%	-370 mil	213.63%
Idaho	31.28%	-381 mil	-61.05%
Illinois	29.28%	-6378 mil	-49.33%
Indiana	30.10%	-2557 mil	0.30%
Iowa	29.88%	-1030 mil	-9.58%
Kansas	30.59%	-1129 mil	-21.17%
Kentucky	30.38%	-1393 mil	210.66%
Louisiana	31.02%	-2103 mil	40.42%
Maine	31.18%	-361 mil	142.69%
Maryland	30.20%	-2823 mil	35.77%
Massachusetts	30.27%	-4240 mil	2.34%
Michigan	30.76%	-3245 mil	-21.09%
Minnesota	28.69%	-3827 mil	-76.96%
Mississippi	30.66%	-547 mil	423.69%
Missouri	29.21%	-2641 mil	27.00%
Montana	30.89%	-242 mil	-0.86%
Nebraska	25.14%	-870 mil	-60.47%
Nevada	30.42%	-769 mil	-95.58%
New Hampshire	31.57%	-519 mil	0.15%
New Jersey	26.34%	-6144 mil	-76.36%
New Mexico	31.17%	-465 mil	69.36%
New York	29.34%	-11520 mil	96.35%
North Carolina	29.84%	-3368 mil	93.10%
North Dakota	30.92%	-260 mil	134.65%
Ohio	30.02%	-6269 mil	110.90%



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Oklahoma	29.37%	-1348 mil	15.11%
Oregon	30.78%	-1276 mil	137.62%
Pennsylvania	29.73%	-5940 mil	55.64%
Rhode Island	26.63%	-549 mil	1.88%
South Carolina	30.55%	-1040 mil	183.98%
South Dakota	31.18%	-263 mil	68.34%
Tennessee	29.85%	-2609 mil	110.99%
Texas	29.01%	-10762 mil	-67.37%
Utah	30.61%	-812 mil	1.40%
Vermont	30.63%	-193 mil	198.57%
Virginia	29.32%	-3332 mil	-35.01%
Washington	29.92%	-2842 mil	-80.49%
West Virginia	31.06%	-366 mil	526.71%
Wisconsin	29.65%	-2222 mil	28.78%
Wyoming	27.55%	-207 mil	-56.71%
NATIONAL TOTAL	29.30%	-135 bil	N/A