

# The Furlough Tax: A Defective Plan

By Henning Bohn\*

July 12, 2009

As if furloughs were not sufficiently damaging to the University's reputation, President Yudof's Furlough Plan<sup>1</sup> is technically flawed—an embarrassment for the University as an academic institution that teaches, among other topics, tax policy.

The basic flaw is that the Plan defines income brackets with stepwise increasing *average* tax rates. This creates a discontinuous tax function with upward jumps at the bracket boundaries and marginal tax rates over 100%. Jumps in taxes also imply “reversals” in relative earnings—some incomes pushed below the incomes of those who normally earn less.

Here is an example that illustrates the reversal problem: Consider someone earning \$40,000 and another earning \$40,200. Under the Furlough Plan, the \$40,000 income is reduced by 4% to \$38,400. The \$40,200 income is reduced by 5% to \$38,190. Thus the person normally earning \$200 more will earn \$210 less during the furlough. This is obviously unjustified and seems unfair.

This problem is unfortunately not isolated but occurs at every jump in the tax function. TABLE 1 documents the magnitude of the reversals. These reversals reveal a defective design: As economists have long recognized, a workable progressive tax schedule must be designed in terms of *marginal* tax rates. Jumps in average tax rates imply infinitely high marginal tax rates, and this has bizarre and unfair consequences.

FIGURE 1 provides a graphical illustration. The figure shows tax rates on \$500 earnings increments at various income levels. One can interpret the figure as answering the question: If two employees have incomes \$500 apart, what percentage of the higher income is taxed away under the Furlough Plan? The top rate is 490% at \$240,000 income. (Maybe an attempt to get rid of Nobel Laureates?)

One “fix” for the income reversals might be to promise everyone at least the top income of the previous income bracket (e.g., \$38,400 for everyone earning \$40,000 or more). But this would create new problems: Reductions in income would become disconnected from reductions in time and therefore arbitrary, and marginal tax rates would still be 100% over certain income ranges.

Conclusion: This plan is defective and should be withdrawn.

---

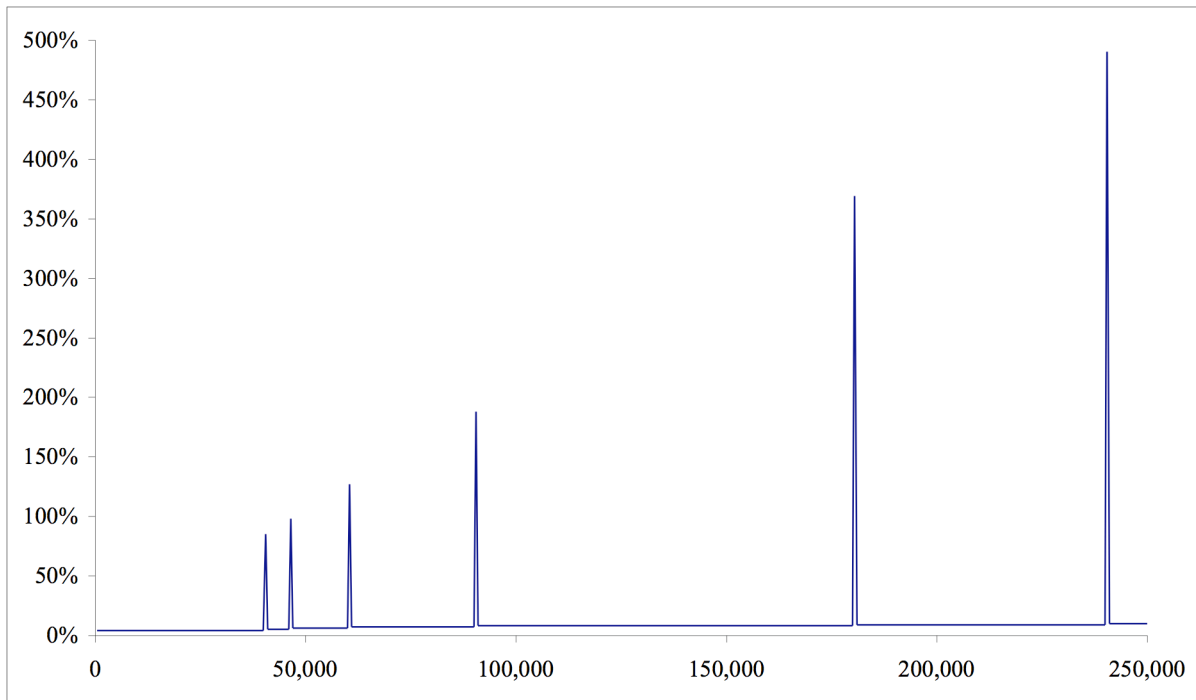
\* Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. Phone: (805)-893-4532; email: [bohn@econ.ucsb.edu](mailto:bohn@econ.ucsb.edu); URL: <http://econ.ucsb.edu/~bohn>.

<sup>1</sup> “Recommendation for Declaration of Financial Emergency and Approval of Budget Reduction Actions”, Action Item J2 at the July 2009 UC Regent's meeting, available at <http://www.universityofcalifornia.edu/regents/regmeet/july09.html>.

**Table 1: Those who normally earn more will earn less**

Normal Income	Tax	Income during Furlough	Normal Income	Tax	Income during Furlough	Income Reversal
40000	4%	38400	40001	5%	38001	-399
46000	5%	43700	46001	6%	43241	-459
60000	6%	56400	60001	7%	55801	-599
90000	7%	83700	90001	8%	82801	-899
180000	8%	165600	180001	9%	163801	-1799
240000	9%	218400	240001	10%	216001	-2399

**Figure 1: Average Marginal Tax Rates under the Furlough Plan<sup>2</sup>**



<sup>2</sup> The figure shows average marginal rates over \$500 intervals. Marginal taxes must be averaged over discrete intervals because marginal rates are undefined (unbounded) at income levels where the tax function jumps up.