Economic Impact of
Small Brewers Excise Tax Reduction
(H.R. 4278)

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Economic Highlights of Excise Tax Reduction (H.R. 4278)

- The proposed reduction in the federal excise tax on beer produced by small brewers (i.e., brewers producing up to 6 million barrels of beer per year) would increase economic activity by $115.6 million in 2010 and $733.8 million over five years.

- Federal tax revenue would fall by $10.6 million in 2010 and $67.3 million over five years.

- Economic activity would increase by $10.91 per dollar lost in government revenue, making the bill an efficient use of government funds.

- The bill would stimulate job creation quickly and at a low cost.

  ¤ The bill would generate more than 2,700 new jobs over the first year to eighteen months followed by an average of 375 new jobs per year over the following four years.

  ¤ Each new job would cost less than $4,000 in foregone government revenue in 2010.

Proposed Reform

Currently, small brewers pay $7 per barrel in federal excise tax on the first 60,000 barrels produced. Only those brewers producing fewer than 2 million barrels per year are eligible. Otherwise, brewers pay the full federal excise tax of $18 per barrel.

H.R. 4278, proposed by Congressman Neal (D-MA) and Congressman Brady (R-TX), would reduce the excise tax applicable to small brewers producing up to 6 million barrels per year in two ways. First, the tax rate applicable to the first 60,000 barrels would be lowered to $3.50 per barrel. Second, the tax rate on additional barrels below 2 million per year would be reduced to $16.

Economic Impact of the Small Brewers Excise Tax Reduction[1]

Price Decline:
- The proposed reduction in the beer excise tax would reduce the average price of a case of craft beer produced by small brewers in 2010 by $0.19, or 0.63% based on an average price per case of $30.36.[2]
- Small brewers producing fewer than 60,000 barrels per year would see larger price reductions of $0.25 per case, or 0.84%.
- Note that this "price reduction" may appear as smaller price increases, as the prices of craft beers have increased by several percentage points each year in the past five years.

Increased Demand:
- As a result of the fall in price, consumers would purchase an additional 1.22 million cases of craft beer in 2010.[3] The proposed excise tax reduction would generate additional revenue for American small brewers of $37.2 million in 2010.
- The extra revenue for small brewers would increase to $58.5 million by 2014.[4]

Economic Impact:
- In 2010, the excise tax reduction would increase economic activity by $115.6 million.
- By 2014, the yearly increase in output would rise to $181.6 million. The total impact over five years would be $733.8 million.

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[1] The projections set forth in this study assume a passage date of January 1, 2010. If the bill were passed later in 2010, then the impact of the bill on economic activity in 2010 would be reduced, but the impact on 2011 and beyond would not change.
[2] For this analysis, a case is defined as containing 24, 12 fluid ounce bottles. $30.36 is the average price per case of craft beer in the four weeks ending January 25, 2009, in the most recent survey from IRI. The majority of beer from small brewers is considered "craft beer."
[3] The latest data available is for 2008. To project sales for 2010, I take the average growth rate in the craft brewing industry over the last five years, which is 9.4%.
[4] To project the impact of the tax project, I assume that, in the absence of the reform, price and quantity would continue to growth at historical trends. Volume grows by 9.44% per year, price by 2.3%.

Figure 1: Economic Impact of Excise Tax Reduction, Over Time
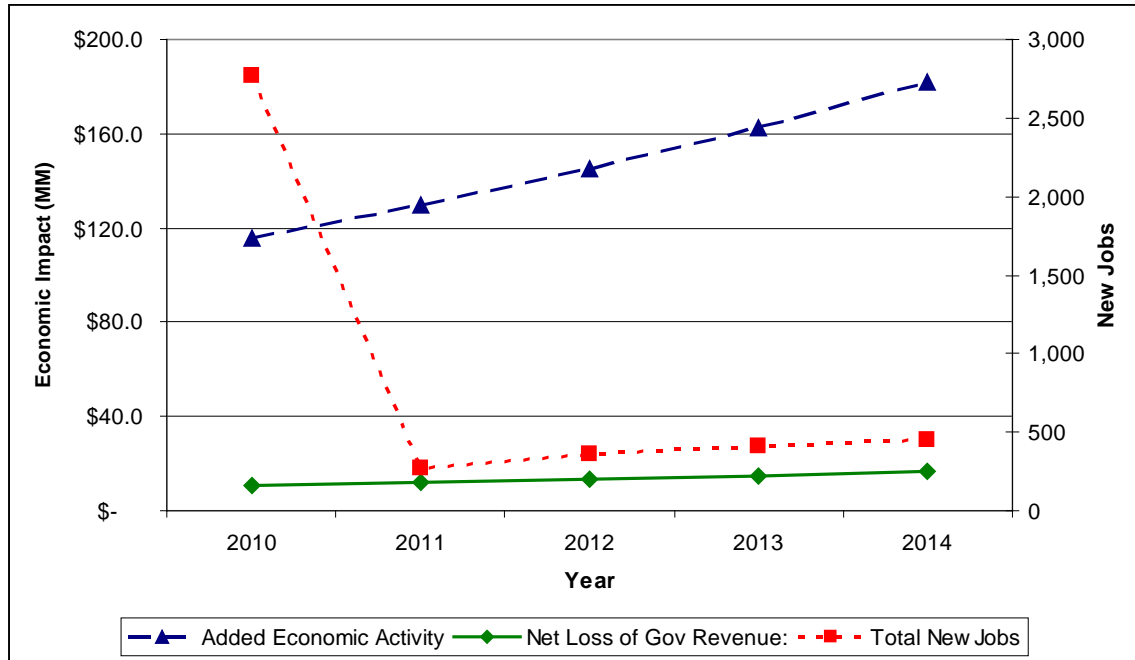
Jobs Created:
- If the economy grows by $115.6 million as a result of the excise tax reduction, workers must produce additional goods and services, and so the bill would create more than 2,700 new jobs in 2010.
- This large increase in jobs would occur in the first year to eighteen months following the passage of the bill, regardless of the date of passage. After this initial period of job creation, job growth slows to 300-400 per year.
- These estimates are based on a median income of $41,746 per worker.[5] This reflects both new jobs and an increase in utilization for workers in old jobs.

Total Impact on Government Revenues:
- The proposed excise tax reduction would reduce the revenue collected by the federal government by only $10.6 million in 2010.
- H.R. 4278 would directly reduce the revenue of the federal government by $42.3 million. This loss is offset in part, however, by $30.6 million in payroll and income taxes collected on the increased economic activity.[6] The government would collect an additional $1.1 million in excise taxes from the increase in craft beer sales.
- The net yearly revenue loss would increase to $16.6 million by 2014. The total revenue loss over five years would be $67.3 million.

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[5] Median individual earnings from Annual Social and Economic Supplement to the Census, 2008.
[6] I assume an average marginal tax rate of 26.49%, based on the NBER TaxSim in 2008.

Revenue Cost of Increased Economic Activity and Jobs:
- H.R. 4278 would generate $10.91 of additional economic activity per lost revenue dollar in 2010. A similar calculation implies that this bill would cost the government $3,826 in lost revenue per job created.
- These numbers compare favorably to the efficiency of many other spending and tax cut provisions, including in the American Recovery and Reinvestment Act of 2009. For instance, the Council of Economic Advisors estimates that the most effective provisions of the American Recovery and Reinvestment Act of 2009 generated one job per $92,136 of spending.[7]

State-by-State Estimates:
In addition to the national estimates, I calculate the estimated impact of the excise tax reductions on jobs and economic activity in each state. I assume that economic activity generated by increased craft beer sales accrues to each state based on the location of breweries. I assume that economic activity generated by savings on beer already purchased accrues to each state based on per-capita consumption. Finally, I assume that 30% of all economic activity accrues nationally (based on population shares) instead of locally. To correct for the mechanical effect of size, I then scale the number of jobs created by the population to calculate per capita numbers.

Figure 2: Geographic Distribution of Economic Benefits
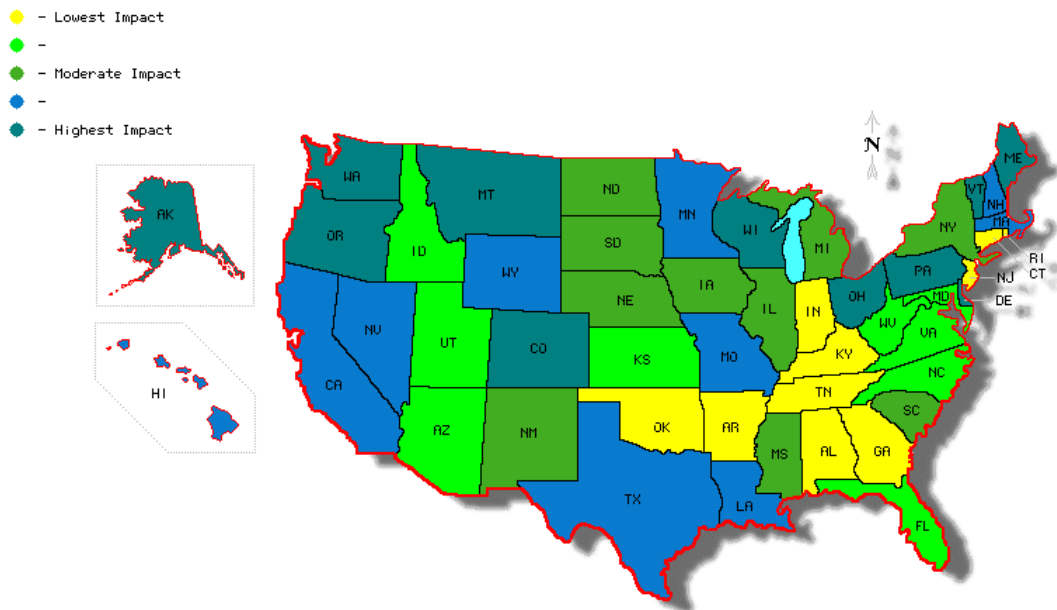
This figure shows the distribution of the increased economic activity and jobs created by state. The darker the state, the more jobs are created. Not surprisingly, the economic impact of the excise tax reduction is largest in states such as Pennsylvania, Vermont and Oregon where there are the greatest concentrations of craft brewers.

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[7] See CEA, "Estimate of Job Creation from the ARRA of 2009," May 2009.

Methodology

I estimate the economic impact of this reform in three steps.

First, I estimate, for each brewer, the decrease in excise tax owed. Assuming that these cost savings are passed onto customers as price declines (or as smaller price increases), I then calculate the change in price of small packaging brewer beer and pub-brewed beer.

Second, I estimate the increase in consumer demand for small brewer beers. I assume a price elasticity of 0.88, which implies that if the price of beer falls by 1% then demand increases by 0.88%.[8] Furthermore, I assume that 80% of the increase in small brewer beer sales represents new spending, while 20% is offset by decreased spending on other alcoholic beverages.

Third, I estimate the impact on economic activity. There are two channels through which the tax cut affects the economy. First, increased spending on beers from small brewers drives further economic activity. Given that this money is directly spent, I use a government spending fiscal multiplier to estimate the total impact of this extra spending.[9] This accounts for not just the impact of the direct spending on beer, but also the indirect affect from increased brewery investment and employment. This effect accounts for 45% of the GDP gains from the bill. Second, the excise tax reduction means that consumers pay less for the beer they are already buying. Since this represents an increase in unearned income, I translate these savings into total economic activity using the fiscal multiplier for government transfers.[10] The second effect represents 55% of the GDP gains.

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[8] See Chetty, Looney and Kroft (2009), among others in the literature.
[9] The precise assumption is 1.75, the middle of the CBO government spending range. See CBO "Estimated Impact of ARRA on Employment and Economic Output," November 2009.
[10] The precise assumption is 1.5, the middle of the CBO government transfer range. See CBO above.