

Economic Impact of
The Small Brewer Reinvestment and
Expanding Workforce Act
(H.R. 494 and S. 917)

Bartholomew C. Watson, Ph.D.

Chief Economist, Brewers Association

Based on a methodology developed by Dr. John N. Friedman,
Brown University

September 9, 2014

Economic Highlights of Excise Tax Reduction
(H.R. 494 and S. 917)

- The proposed reduction in the federal excise tax on beer produced by all brewers would increase economic activity by \$ 205.0 million in 2014 and \$ 1.21 billion over five years.

- Net federal tax revenue would fall by more than \$19.7 million in 2014 and \$ 129.9 million over five years.

- Economic activity would increase by \$10.41 per dollar lost in government revenue.

- The bill would stimulate job creation:
 - ⌘ The bill would generate about 6,000 new jobs over the first year to eighteen months, followed by an average of about 570 new jobs per year after that.

 - ⌘ Each new job would cost just \$3,400 in foregone government revenue in 2014.

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 federal excise tax of \$18 per barrel.

H.R. 494, proposed by Rep. Gerlach (R-PA) and Rep. Neal (D-MA), and S. 917, proposed by Sen. Cardin (D-MD) and Sen. Collins (R-ME), 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 BREW Act¹

Potential Price Decline:

- The proposed reduction in the beer excise tax would reduce taxes paid per case by roughly \$0.18 per case in 2013, or 0.53% based on an average price per case of \$34.77.²
- For small brewers producing fewer than 60,000 barrels, the reduction in excise taxes paid would be larger at \$0.25 per case, or 0.73%.
- The reduction in excise taxes should lower prices, although the price may fall by less than the full reduction in taxes. Note that this “price reduction” may also 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 decrease in excise taxes, consumers would purchase an additional 1.9 million cases of beer from small brewers in 2014.³ The proposed excise tax reduction would generate additional revenue for brewers of \$65.0 million in 2014.
- The extra revenue for small brewers would increase to \$84.1 million by 2018, for a total of \$371.4 million over five years.⁴

¹ The projections set forth in this study assume a passage date of January 1, 2014. If the bill were passed at some later time, then the impact of the bill on economic activity in the first calendar year after passage would be roughly what this report projects for 2014, and so on after that. The overall impact of the bill over the first 5 years would not change.

² For this analysis, a case is defined as containing 24 12-fluid-ounce bottles. \$34.77 is the average price per case of craft beer in U.S. supermarket, in the most recent survey from SymphonyIRI. The majority of beer from small brewers is considered “craft beer.”

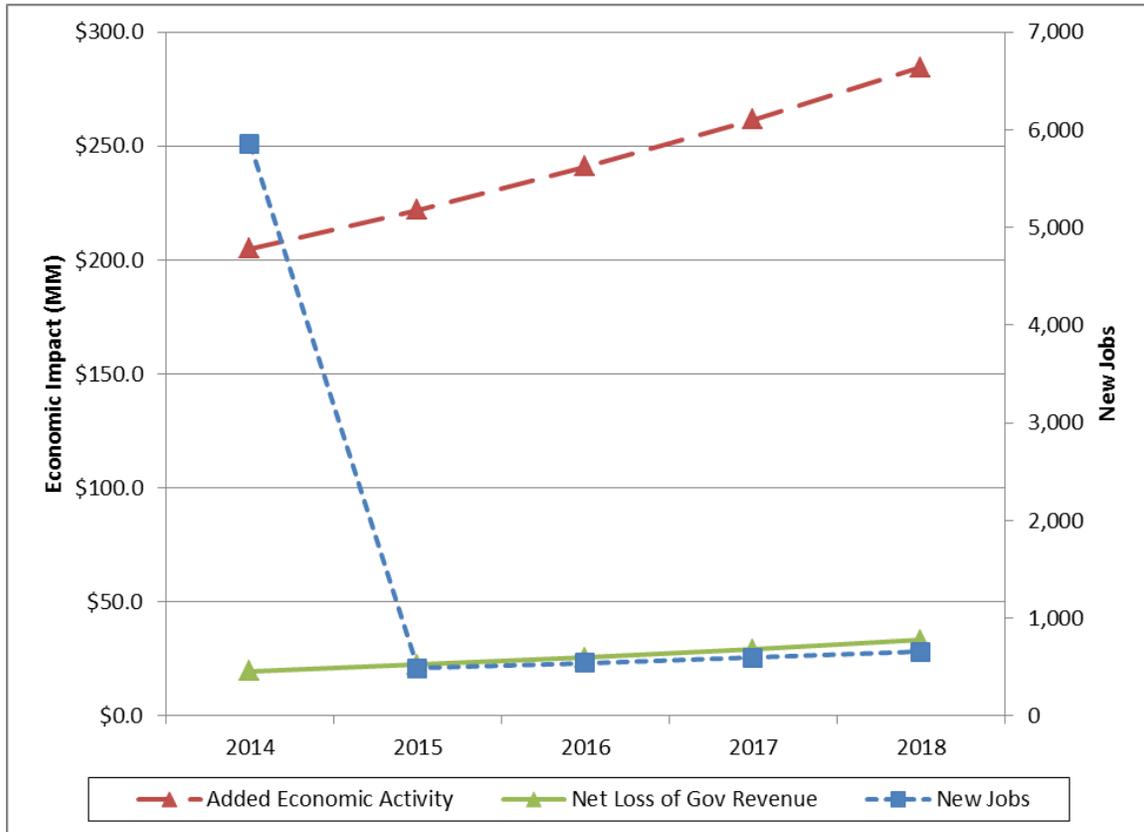
³ The latest data available is for 2013. To project sales forward, I take the different average growth rates for breweries above and below 60,000 bbls and extrapolate to 2014.

⁴ To project the impact of the proposed tax change, I assume that, in the absence of the reform, price and quantity would continue to grow at historical trends (based on 2008-2013). Volume grows by 12.7% per year, price by 2.2%.

Economic Impact:

- In 2014, the excise tax reduction would increase economic activity by \$205.0 million.
- By 2018, the increase in output would rise to \$284.6 million. The total impact over five years would be \$1.21 billion.

Figure 1: Economic Impact of Excise Tax Reduction, Over Time



Jobs Created:

- When the economy grows due to the excise tax reduction, workers must produce additional goods and services, and so the bill would create 5,858 new jobs in 2014.
- 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 levels off to about 570 per year, driven by the growth in sales from small brewers.
- These estimates are based on estimates that each \$35,000 of increased GDP creates one new job.⁵

Total Impact on Government Revenues:

- The proposed excise tax reduction would directly reduce the excise tax revenue collected by the federal government by \$ 76.0 million in 2014.

⁵ Shoag (2011).

- This loss is offset in large part, however, by \$55.0 million in new payroll and income taxes collected on the increased economic activity.⁶ The government would collect an additional \$1.3 million in excise taxes from the increase in beer sales.
- The net yearly revenue loss would therefore be \$ 19.7 million in 2014. The total net revenue loss over five years would be \$ 129.9 million.

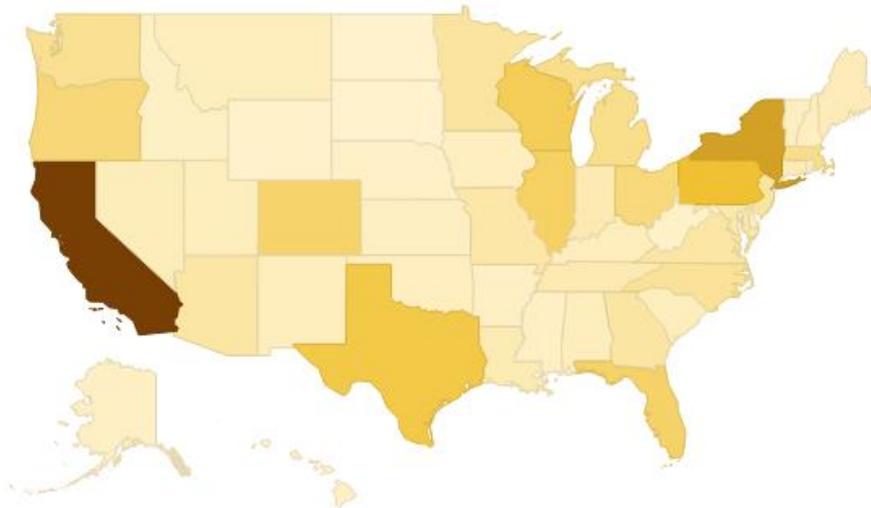
Revenue Cost of Increased Economic Activity and Jobs:

- The Small BREW Act would generate \$10.41 of additional economic activity per lost revenue dollar in 2014. A similar calculation implies that this bill would cost the government \$3,362 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 distribution of small brewery production. 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.

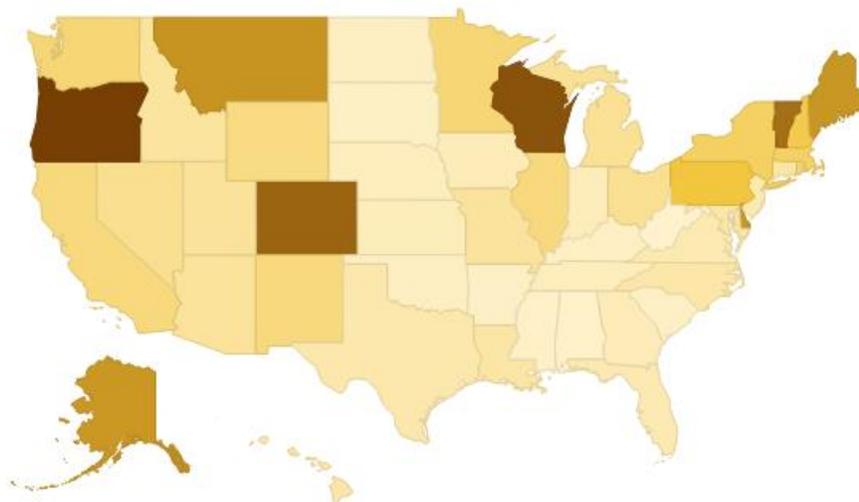
Figure 2: Geographic Distribution of Economic Benefits (Total)



⁶ I assume an average marginal tax rate of 26.8%, based on the NBER TaxSim in 2013.

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

Figure 3: Geographic Distribution of Economic Benefits (Per Capita)



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 total economic impact of the excise tax reduction is largest per capita in states such as Oregon, Colorado and Wisconsin where there are the greatest concentrations of craft brewers, whereas absolute job creation is largest in states with large populations.

Methodology

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

First, I estimate, for each brewer, the decrease in excise tax owed. This is a mechanical calculation based on the current and proposed laws.

Second, I estimate the increase in consumer demand for small brewer beers. I assume a tax elasticity of 0.88, which implies that if the price of beer falls by 1% then demand increases by 0.88%.⁸ Note that this analysis does not require that prices fall by the full amount, since 0.88 is a *tax* elasticity. 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

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.

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 and firms earn more from beer they are selling. 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.

It is worth noting that this report does not attempt to account for any negative externalities from the projected increase in beer consumption such as increased crime, property damage, and vehicle accidents. It would require very strong assumptions that go beyond the scope of this report to estimate the costs associated from increases in these behaviors. Thus this report follows other reports of this type (for instance, CBO Budget Options) and quantifies only the direct economic impacts.

Changes in This Version

The current version of this report uses 2013 sales data, by brewing company, to project forward the economic impact of H.R. 494 and S. 917. The industry has somewhat expanded, increasing the economic impact of the bill. In addition, the five-year average growth rate in the craft beer segment increases to 12.7%, somewhat reducing the projection of the economic impact over the next five years. (The growth rate for Progressive Adult Beverages remains at 5.5% per year.) The average marginal rate has also risen to 26.8%, based on combined state and federal taxes from NBER TAXSIM.

¹⁰ The precise assumption is 1.5, the middle of the CBO government transfer range. See CBO above.