

Notes on FBJ Analysis of Revenue and Tax Impact of Declining Striped Bass Trips in MA

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The purpose of this analysis was to estimate the economic impact on MA sales and tax revenues of the decline in striped bass recreational fishing trips in MA from 2007 and 2014 to the preliminary information available for 2015.

Based on data from NOAA on the number of total recreational angling trips in MA from 2000 to 2015, the total trips from 2000 through 2015 were used to estimate the economic impacts on a per trip basis in 2003 for the MA WSB recreational fishery, based on the Southwick Report (www.striperforever.org), which found that the total annual economic impact on sales and spending in MA as of 2003 was \$439.99 per striped bass fishing trip, and that the per trip impact on salaries and wages was \$111.96, on sales and motor fuel taxes was \$14.86, and on state income taxes was \$5.24 per WSB trip during the year 2003.¹ Using the Consumer Price Index (CPI) to impute inflation-adjusted equivalent figures for the other years allowed a calculation of the same per trip economic impacts for the years from 2000 to 2015.² Multiplying these imputed annual figures per WSB trip by the number of trips in each year yields an estimate of the total annual economic impact of MA WSB fishing on spending and tax revenues in each of 16 years from 2000 through 2015.

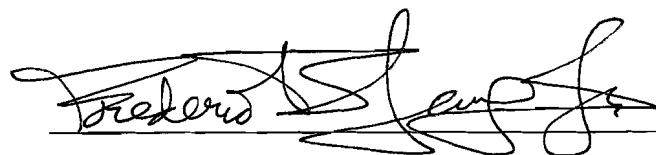
Two intervals were considered, from 2007 – the year the total economic impact of MA WSB recreational fishing trips reached a maximum – to 2015, and from 2014 to 2015 to understand the economic impact of the declining number of trips during recent years. The results are summarized below, drawn from the accompanying spreadsheet analysis.

LOSSES IN MA SALES AND TAXES DUE TO DECLINING STRIPED BASS TRIPS FROM 2007 AND 2014 TO 2015		
	Absolute Declines from 2007 to 2015	Absolute Declines from 2014 to 2015
Decline in sales from WSB fishing	\$979,831,003.55	\$579,499,671.11
Decline in Salaries and Wages	\$249,328,119.18	\$147,459,676.76
Decline in Sales and Fuel Taxes	\$33,092,317.35	\$19,571,729.16
Decline in State Income Taxes	\$11,669,161.71	\$6,901,471.12
	Percent Declines from 2007 to 2015	Percent Declines from 2014 to 2015
Percent decline in sales and taxes	66.2%	53.7%

The results are readily summarized. During the eight years between 2007 and 2015, there was a 66.2% decline in total annual sales, salaries and wages, and MA state tax revenues, where sales associated with recreational WSB fishing declined by almost \$1 billion, salaries and wages by almost \$250 million, and state tax revenues by almost \$45 million. The recent rapid decline in these magnitudes, between 2014 and 2015 (though based on preliminary data on WSB trips and the CPI), was 53.7% in one year, where sales resulting from recreational WSB fishing in MA declined by almost \$600 million, salaries and wages by almost \$150 million, and state tax revenues by over \$25 million in a single year.

These significant losses in economic value expressed by a decline in annual expenditures on recreational WSB fishing in MA, resulting from the rapid decline in the quality of our local WSB fishery reflected by the decrease in fishing trips, suggests that the value of this fishery ought to be considered by the fisheries management system and the MA state legislature, regarding any consideration of how this species is managed in MA state waters.

Respectfully submitted,



Frederic B. Jennings Jr.

¹ See Southwick Report for MA, 2005, Table 6, p. 10.

² The trip and CPI figures for 2015 are preliminary as of this writing.

ANALYSIS OF REVENUE AND TAX IMPACT OF REDUCTION OF WILD STRIPED BASS RECREATIONAL FISHING TRIPS IN MA FROM 2007 AND 2014 TO 2015

<u>Year</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
Est. # of striped bass trips in MA	2,810,323	2,978,767	2,850,159	2,641,005	2,813,939	2,699,771	2,816,805	3,014,182
CPI data for Boston - Brockton area (2003=100)	90.0	93.9	96.4	100.0	102.7	106.1	109.4	111.5
Total economic effect on MA sales per WSB trip	\$396.19	\$413.23	\$424.02	\$439.99	\$452.07	\$466.96	\$481.42	\$490.72
MA Salaries and Wages per WSB trip	\$100.81	\$105.15	\$107.90	\$111.96	\$115.03	\$118.82	\$122.50	\$124.87
MA Sales and Motor Fuel Taxes per WSB trip	\$13.38	\$13.96	\$14.32	\$14.86	\$15.27	\$15.77	\$16.26	\$16.57
MA State Income Taxes per WSB trip	\$4.72	\$4.92	\$5.05	\$5.24	\$5.38	\$5.56	\$5.73	\$5.84
Estimated total effect on MA sales of WSB fishing	\$1,113,408,403.53	\$1,230,923,016.58	\$1,208,529,409.40	\$1,162,015,789.95	\$1,272,108,885.82	\$1,260,694,228.70	\$1,356,069,454.28	\$1,479,117,586.23
Estimated total effect on MA Salaries and Wages	\$283,318,268.28	\$313,221,075.33	\$307,522,790.69	\$295,686,919.80	\$323,701,245.16	\$320,796,667.75	\$345,065,879.00	\$376,376,747.09
Estimated total effect on MA Sales and Fuel Taxes	\$37,603,692.98	\$41,572,572.16	\$40,816,261.79	\$39,245,334.30	\$42,963,562.91	\$42,578,050.04	\$45,799,204.73	\$49,954,970.18
Estimated total effect on MA State Income Taxes	\$13,259,983.26	\$14,659,507.28	\$14,392,813.71	\$13,838,866.20	\$15,150,004.69	\$15,014,063.41	\$16,149,921.45	\$17,615,346.15
Year (continued)	2008	2009	2010	2011	2012	2013	2014	2015 Prelim Est
Est. # of striped bass trips in MA	2,829,096	2,157,200	1,967,823	1,560,356	1,650,954	1,761,750	1,959,099	898,560
CPI data for Boston - Brockton area (2003=100)	115.4	114.7	116.5	119.6	121.5	123.2	125.2	126.3
Overall economic effect on MA sales per WSB trip	\$507.90	\$504.46	\$512.38	\$526.26	\$534.58	\$541.93	\$550.65	\$555.65
MA Salaries and Wages per WSB trip	\$129.24	\$128.37	\$130.38	\$133.91	\$136.03	\$137.90	\$140.12	\$141.39
MA Sales and Motor Fuel Taxes per WSB trip	\$17.15	\$17.04	\$17.30	\$17.77	\$18.05	\$18.30	\$18.60	\$18.77
MA State Income Taxes per WSB trip	\$6.05	\$6.01	\$6.10	\$6.27	\$6.37	\$6.45	\$6.56	\$6.62
Estimated total effect on MA sales of WSB fishing	\$1,436,892,812.09	\$1,088,227,335.19	\$1,008,269,129.52	\$821,158,972.57	\$882,560,355.30	\$954,737,587.98	\$1,078,786,253.79	\$499,286,582.68
Estimated total effect on MA Salaries and Wages	\$365,632,217.19	\$276,910,685.35	\$256,564,494.06	\$208,952,382.03	\$224,576,598.06	\$242,942,840.41	\$274,508,304.68	\$127,048,627.92
Estimated total effect on MA Sales and Fuel Taxes	\$48,528,891.99	\$36,753,240.30	\$34,052,772.26	\$27,733,408.33	\$29,807,147.62	\$32,244,825.01	\$36,434,381.99	\$16,862,652.83
Estimated total effect on MA State Income Taxes	\$17,112,476.05	\$12,960,092.81	\$12,007,841.63	\$9,779,479.12	\$10,510,730.38	\$11,370,315.15	\$12,847,655.56	\$5,946,184.44

ABSOLUTE AND PERCENTAGE LOSSES IN MA SALES AND TAXES DUE TO DECLINING STRIPED BASS TRIPS FROM 2008 AND 2013 TO 2014

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Decline in MA sales from WSB fishing	\$979,831,003.55	\$579,499,671.11
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Associated Decline in MA State Income Taxes	\$11,669,161.71	\$6,901,471.12
	<u>Percentage Declines from 2007 to 2015</u>	<u>Percentage Declines from 2014 to 2015</u>
Percentage decline in MA sales and taxes	66.2%	53.7%