Preliminary Evaluation of SB90, 2013 Effects

Developed by the Environmental Finance Center (EFC) at the University of Maryland in Partnership with Main Street Economics.

January 30, 2014

The following policy note was produced by the Environmental Finance Center in partnership with Main Street Economics. Any questions or concerns should be forwarded to Dan Nees, Senior Research Associate at dnees@umd.edu.

Introduction. This policy note contains a follow-up evaluation related to EFC's analysis of the likely impact of a vessel tax cap on boat sales in the state of Maryland. Below we provide a preliminary evaluation of high-value boat sales in Maryland in 2013; in addition, we offer the following key points and issues:

- Due to data constraints, our earlier research used four years worth of data to evaluate the influence of factors that affect boaters' decisions about where to register their boat. We then simply divided outcomes by 4 to suggest annual boater registration effects owing to a change in the incidence of the VET. Using six months worth of data to evaluate results generated by four-year averages presumes greater precision than our estimators have.
- Given current data constraints (i.e., only six months experience with the SB90 cap) there is an increase in number and sales value of >$300,000 vessels when we compare calendar year 2013 with calendar year 2012. Since the cap was only in effect half of that period, its full-year effect is uncertain. Moreover, there was a bump in sales and sales value for this same set going from 2011 to 2012 (before SB90) and that was not much different than the change from 2012 to 2013.
- When we break the data down to six-month periods – first and second half of the calendar year – there is an apparent relationship between the two halves such that sales volumes are greater in the first half of the year. In 2013, this relationship changed and there was greater sales volume in the second half of the year.
- When we compare registrations of >$300,000 vessels against all new registrations in 2013 by value, we see that >$300,000 vessels had less of an uptick than either all registrations or even >$150,000 vessels. It is not clear whether or not this is significant.

Preliminary Evaluation. In March of 2013, we reported the results of a study aimed at evaluating the likely change in Vessel Excise Tax (VET) revenues, given a change in the incidence of the tax. Those results were predicated on a multinomial LOGIT model which considered demand for high-end boat registrations among a subset of Maryland residents and residents of neighboring states who either bought their boat in Maryland or registered it here (i.e., both Maryland B110 purchases and VET registrations). We evaluated registrants' decisions with respect to several variables that might reasonably be thought to influence their choices, including: distance between a registrant's residence and dockage in Maryland's waters, tax rates by state, a weather variable and a variable tracking the concentration of marinas.

Output from the LOGIT model was used to predict changes in boat registrants' choices given a cap on Maryland's VET. In particular, we generated coefficients that allowed us to predict the number of additional boats that would register in Maryland from neighboring states, given a change in tax requirements. Using historical Maryland boat registration data, we were then able to evaluate whether the capped tax from additional boats registering in Maryland would compensate for the VET revenues lost due to the cap at some particular level. Results of all tested tax cap levels indicated that direct revenue from the VET would suffer with a cap. However, we did not evaluate total tax revenue generated by the increase in Maryland high-end boat registrations including additional in-state spending on dockage, supplies, repair and recreation by new registrants.

The six months of market activity since the implementation of SB 90, 2013, affords us a preliminary look at potential early effects. Using updated sales data from Maryland DNR tracking boat sales greater than $300,000 in which the boat was registered in Maryland, Table 1 reports an uptick in both the number and value of sales from 2012 to 2013. Sales of boats valued more than $300,000 in calendar year 2013 were 19 percent more numerous than in 2012 and their annual combined value was 28 percent higher. Of course, given the revenue effect of the tax cap, VET revenues generated by those sales declined by 15 percent over the same period.

Table 1: Maryland-Registered Vessels >$300,000

	Sales (Number)	Value of Sales	VET
2002	241	118,866,333	4,408,759
2003	266	169,642,405	6,093,225
2004	343	174,075,184	5,546,602
2005	352	180,980,953	6,412,934
2006	304	155,370,984	5,484,626
2007	319	161,640,708	5,786,398
2008	207	111,338,900	3,945,437
2009	130	68,009,006	2,556,623
2010	130	61,409,088	2,179,155
2011	105	53,217,168	1,934,057
2012	124	64,452,269	2,551,228
2013	148	82,541,914	2,165,925

The increase in sales and sales values from 2012 to 2013 only slightly exceed the increase seen between 2011 and 2012, before SB 90. Comparing sales of greater than $300,000 vessels registering in Maryland between those two years, 2012 showed an 18 percent increase in sales numbers and a 21 percent increase in sales values over 2011. Moreover, since there was no tax cap during that period, VET revenues increased almost 32 percent between 2011 and 2012.

Since in the preceding we are considering whole calendar years and the tax cap has only been in place for six months, any effect of the cap is diluted. We might expect to see its effect more clearly if we consider six month periods, rather than full years. Comparing annual sales and sales volumes between the first and second half of each calendar year from 2002 to 2012, we find that numbers and biannual value of sales for boats over $300,000 are consistently greater during the first part of the year. On average over this period, we see 20 more sales taking place between January 1 and June 30 than between July 1 and December 31. Sales value during the first half of the average year exceeds that of the second half by $16.68 million.

Calendar year 2013, with the tax cap taking effect on July 1 of the year, shows that rather than a decline of 20 sales during the second half of the year 2 more sales were transacted in the second than were transacted in the first half. And, rather than a $16.68 million drop in second half sales values, 2013 shows an increase of $13 million in qualifying sales during the second half. While it is clearly too early to say anything definitive about this statistic with respect to the tax cap, it looks like an exceptional increase in the sale and registration in Maryland of high end vessels.

An alternative view is that, in 2013, sales that might have taken place during the first half of the year were deferred until after the tax cap went into effect, artificially boosting second half sales. While this effect might exist, first half 2013 sales values for vessels valued at more than $300,000 were only slightly less than 2012 values for the same period and number of sales was greater. Almost half of the sales in the first half of 2013 took place during the second quarter, when it was known that a tax cap was coming. In fact, a significant number of qualifying boats sold in the second quarter of 2013 were registered at excise tax rates that incorporated the cap.

In addition to the sales of vessels greater than $300,000 registering in Maryland, our earlier study made use of data on sales happening in Maryland in which the vessel is to be registered elsewhere. These are referred to as B110 sales, for the forms that must be completed when they are sold. Those vessels are not liable for Maryland's VET, but rather are taxed according to the rules operative in the place where they will register.

Another years worth of data was added to a series compiled under the earlier research for all sales greater than $150,000 and beginning with the second half of 2008. In our evaluation, we limit those data to the $300,000 and greater sales. Qualifying B110 sales appear to be on a downward trend during this period. In 2009 and 2010, sales during the second half of each year were much more robust than sales in their first halves. However, in 2011 sales were roughly the same during the first and second halves of the year and both 2012 and 2013 have more and larger sales during the first half of each year. In short, there is no readily apparent pattern with respect to half year sales statistics for B110 sales. On the other hand, it can be said that the trending decline in the share of B110 to Maryland-registered sales of vessels greater than $300,000 appears to continue in 2013.

Table 2: B110 Summary Data

Year	**# Sales**	**ValueSales**		**Annual Numbers**	
2008a				**Sales**	**Values**
2008b	41	32,411,751			
2009a	25	14,499,652	**2009**	66	46,941,176
2009b	41	32,441,524			
2010a	24	19,650,170	**2010**	54	40,712,614
2010b	30	21,062,444			
2011a	29	16,102,241	**2011**	58	32,661,123
2011b	29	16,558,882			
2012a	27	21,415,265	**2012**	44	32,542,415

2012b	17	11,127,150			
2013a	21	22,580,354	**2013**	41	35,784,910
2013b	20	13,204,556			

Considering greater than $300,000 vessels with respect to all new Maryland-registered vessels, we can see that year-on change tracks rather closely from 2002 to the present. Figure 1 shows both greater than $150,000 and greater than $300,000 vessels in relation to all vessel registrations over this period. (Note: Neither this nor the next figure includes B110 sales.) Figure 2 shows this same time series for VET revenue from sales. Greater than $300,000 VET revenues drop in 2013 as a result of SB90. In Figure 1, both All-Sales and >150k sales increase at a faster clip than >300k sales in 2013.

Figure 1

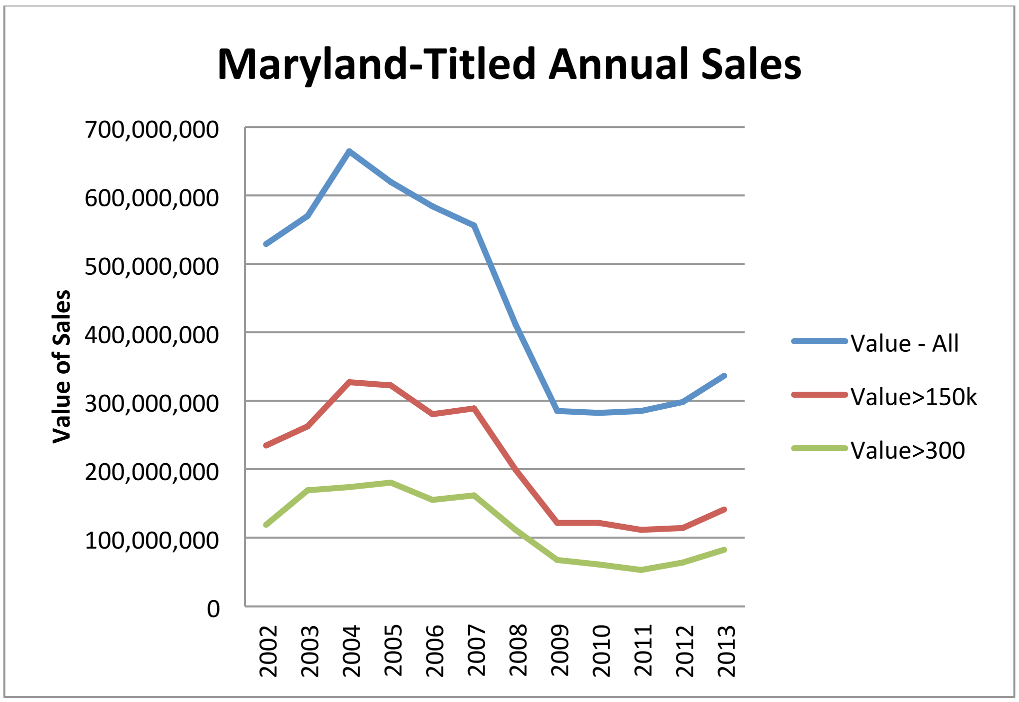
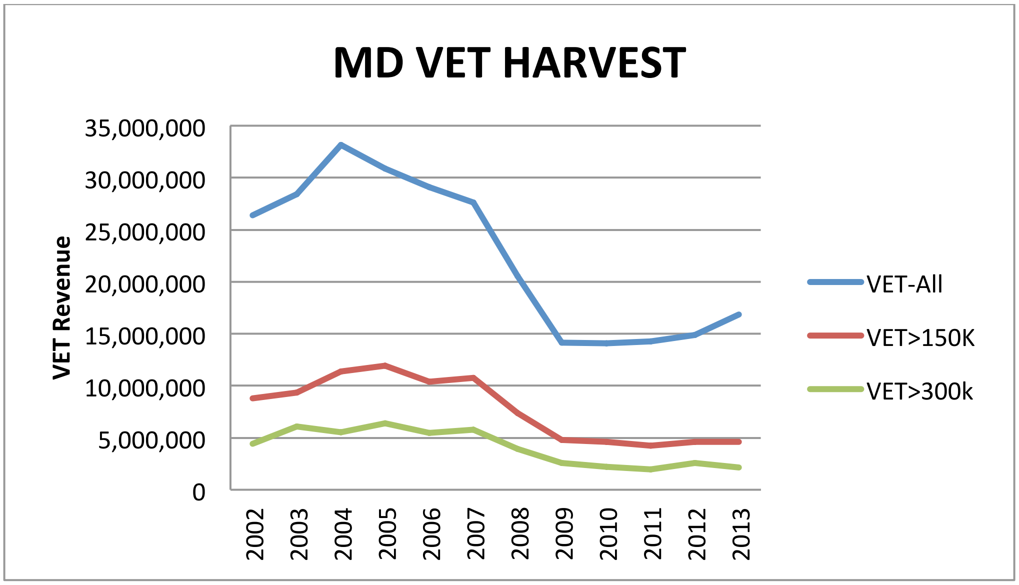


Figure 2



A final statistic of possible relevance to SB90 is the change in very high end vessel registrations. If we use the (admittedly arbitrary) figure, $1,000,000 as our cut off for such vessels, we see that there was a year-on-year bump in Maryland registrations of such boats between 2012 and 2013. As discussed, above, the effect of the tax cap extended beyond the 6 months implied by our use of purchase date as our variable of interest because some vessels purchased in the first half of the year did enjoy registration at the capped rate. So, while there was a 50 percent increase in the number of over $1 million boat registrations between 2012 and 2013, it is not clear what its full year effect will be. Moreover, the increase between 2012 and 2013 still leaves sales of very high-end vessels well short of their 2004 to 2006 highs.

Table 3: Annual New Registrations of >$1 Million Vessels

Year	# of >$1 Million Vessels
2002	10
2003	11
2004	20
2005	18
2006	16
2007	16
2008	13
2009	7
2010	5
2011	6
2012	8
2013	12