Washington State

PRIVATIZATION OF LIQUOR

The Impact of Initiative 1183

Forecasting and Research Division
Office of Financial Management
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Contents

Executive Summary

The Office of Financial Management developed this analysis to illustrate the impact of Initiative 1183, which privatized liquor sales and distribution in Washington state.

Privatization of the retail liquor market in Washington has changed that market dramatically. However, it is unclear if the surge in sales will continue into the future. Sales of liquor have increased by approximately 13 percent; revenue collections have increased by approximately 18 percent; the number of liquor stores has increased by approximately 327 percent; and one proxy for liquor store employment (employment in NAICS 445310) has increased by approximately 91 percent. Some of this growth might have happened without privatization of liquor sales.

Another way to look at the change is to examine the three-year moving average, which controls somewhat for spikes and troughs in the data. The three-year moving average for *retail liters sold* for fiscal year 2012 is 2.4 percent; for fiscal year 2013 is 7.6 percent; and for fiscal year 2014 is 6.5 percent. The three-year moving average for *revenue collection* for fiscal year 2012 is 6.9 percent; for fiscal year 2013 is 18.1 percent; and for fiscal year 2014 is 0.3 percent. The three-year moving average trend shows a steep increase followed by a plateau. Consumers now have more options for their liquor shopping — except for one county — and most likely face lower transaction costs than before. However, they face higher prices on average, approximately an 8 percent increase in per-liter cost.

Introduction

Initiative 1183 appeared on the November 2011 ballot in Washington state and was approved by a 59–41 percent margin. Liquor distributor licensees began making sales of liquor to retail licensees on March 1, 2012. The initiative directed the Washington State Liquor Control Board (LCB) to close the state-run liquor stores and the Distribution Center; liquidate the assets; and permit privately owned stores and distribution systems. State-run liquor stores closed by May 31, 2012.

Supporters of I-1183 had argued that the current system diminished the revenues available for collection by the state. This analysis makes a comparison of the pre- and post-privatization market. Military and tribal establishments are excluded from this analysis as they are not comparable to the retail and "on premise[1]" (OP) marketplace for various reasons. Data used for this study are collected from the LCB, the Department of Revenue and the Employment Security Department.

Licensing fees are based on the revenue volume of licensee sales. The initiative established a new distributor license fee at 10 percent of gross receipts from liquor sold to liquor retailers and other distributors for the first 27 months of licensure, and reduced to 5 percent thereafter.

Retail sales to consumers are subject to a 20.5 percent state liquor sales tax and no regular state retail sales tax. Consumers at OP sellers (restaurants, taverns, etc.) are subject to a 13.7 percent state liquor sales tax plus the additional usual state retail sales tax. Consumers pay an additional

[1] OP refers to establishments other that liquor stores, e.g., hotels, taverns, restaurants, etc.

state liquor liter tax based on volume of $3.7708 per liter at retail locations and $2.4408[2] per liter at OP locations.

Prior to privatization (since the end of Prohibition in 1932), there were 330 (including one inactive) liquor stores regulated by the LCB, 167 state-run stores and 163 stores operated under contract by private businesses. The number of liquor stores fluctuated by one or two stores throughout the years; however, the number was capped at 330. One state-run liquor distribution center served all the retail and OP stores prior to privatization.

Today, there are 132[3] liquor distribution centers in the state (See Table 5 for a full breakdown of alcohol distribution). Although most[4] of the 330 pre-privatization state-run stores sold beer and wine in addition to liquor, private contract stores were able to sell beer and wine without a square footage size limitation. In the post-privatization era, new stores are required to be larger than 10,000 square feet, but can request and may be granted a "trade area designation" waiver by the LCB under some conditions. There are now approximately 1,406[5] retail liquor stores located throughout the state (see Table 3). Pre-privatization, as of May 2012, there were 8,031 OP[6] sellers of liquor; post-privatization, as of April 2014, there were 8,972 sellers of liquor (see Table 4).

Liquor Liters Sold

Privatization of liquor sales produced a statistically significant effect on the retail liters sold[7]: That is, a demand shift[8] occurred with the increase in distribution centers. Normal fluctuations are present in the data, and the seasonal patterns are unchanged, yet the data show a post-privatization increase in sales coincident with an increase in price. The demand shift is probably related to the lower transaction cost of shopping for retail alcohol — consumers experience lower travel costs, lower search costs and, in general, an increase in convenience. Other factors that may affect consumer demand are advertising and cyclical factors, i.e., the ending of the Great Recession. We do not have sufficient data to fully test the transaction cost hypothesis. Time will tell if the demand shift continues or dissipates over the long run.

Thus, pre-privatization, the LCB mission was achieved: to induce and maintain a liquor market characterized by allocative inefficiency, inhibiting full market demand. This reflects a Prohibition-era mission of constraining liquor sales in the state. Following a 1 million liter gain during fiscal year 2009, retail liters sold flattened, decreasing 2.2 percent during 2010 and increasing 2.7 percent during 2011. Liters sold increased 6.6 percent during fiscal year 2012, which contained the first month — June 2012, of the privatized market.

The 2012 increase was followed by an even bigger increase of 13.6 percent during 2013, with more than 4 million more liters sold, compared to 2011, and almost 3 million more liters sold than 2012. Sales during fiscal year 2014 have remained nearly as high as 2013; however, they decreased slightly by 0.6 percent, about 200,000 liters.

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[2] This tax is paid initially by the establishment when it purchases liquor and is passed through to the consumer.
[3] The OFM fiscal impact statement for I-1183 estimated 184 liquor distribution centers.
[4] Contract liquor stores needed an additional license to sell beer and wine.
[5] The OFM fiscal impact statement for I-1183 estimated 1,428 retail establishments.
[6] Retail liquor stores are not included in "OP" establishments.
[7] The OFM fiscal impact statement for I-1183 estimated a 5 percent growth in retail sales of liquor.
[8] We further investigate this demand shift in Appendix 1.

Table 1. Liters sold by fiscal year and percentage change from previous fiscal year 2008–14				
Year	Retail liters sold	Year-over-year percentage change	OP liters sold	Year-over-year percentage change
2008	24,871,537	n/a	9,718,420	n/a
2009	25,961,906	4.4	9,513,269	-2.1
2010	25,403,527	-2.2	9,286,697	-2.4
2011	26,082,837	2.7	9,371,660	0.9
2012	27,816,430	6.6	9,452,831	0.9
2013	31,600,493	13.64	8,506,718	-10.0
2014	31,408,220	-0.6	8,710,045	2.4

Figure 1. Retail and OP liters sold by fiscal year and percentage change from previous fiscal year 2008–14

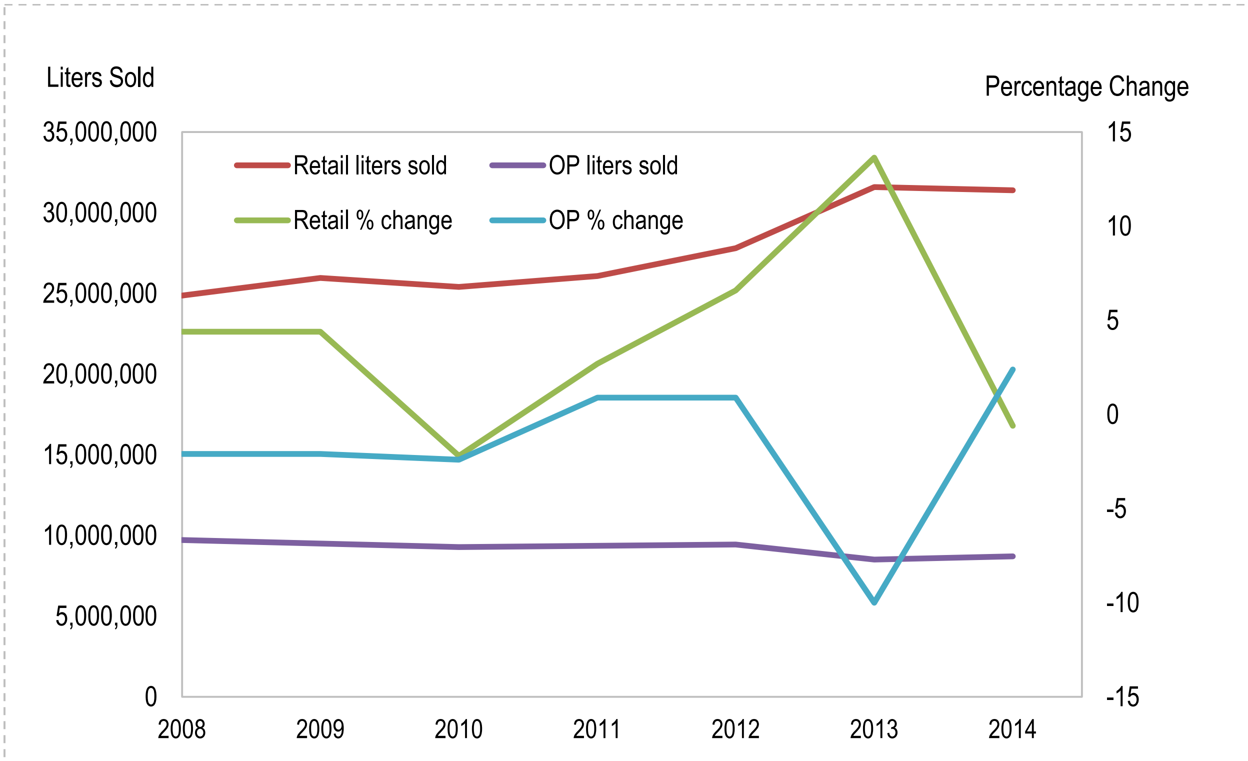


Table 2. Average price per liters sold by fiscal year and percentage change from previous fiscal year 2008–14				
Year	Average retail price per liter	Year-over-year percentage change	Average OP price per liter	Year-over-year percentage change
2008	21.14	n/a	22.29	n/a
2009	21.30	0.8	22.45	0.7
2010	22.45	5.4	23.64	5.3
2011	22.28	-0.8	22.72	-3.9
2012	22.48	0.9	17.58	-22.6
2013	24.20	7.7	18.98	8.0
2014	24.52	1.3	19.04	0.3

Figure 2. Retail and OP average price per liter sold by fiscal year and percentage change from previous fiscal year 2008–14

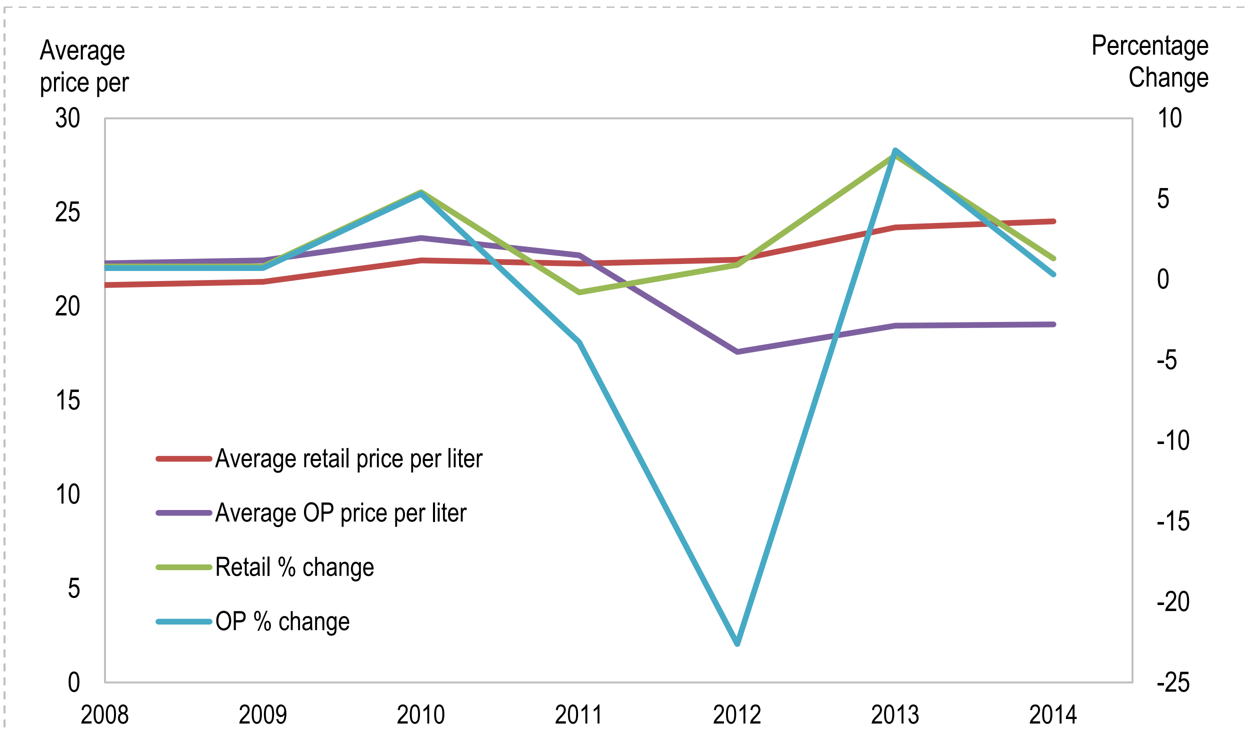
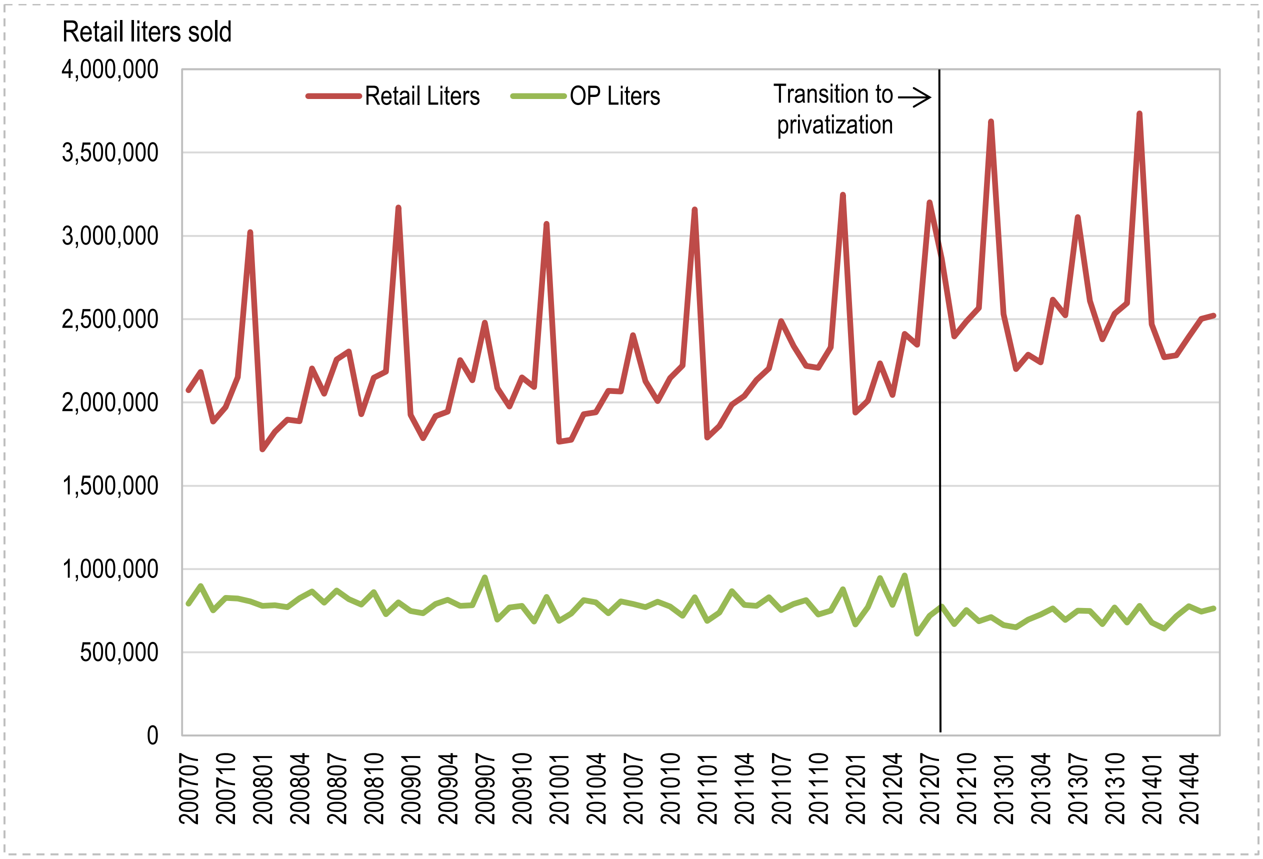


Figure 3 shows monthly counts of liters sold for retail and by OP sellers for the period of July 2007 through July 2014. There are two distinct seasonal patterns in the retail sales data. The first peak occurs around July and the second, the largest, occurs around December. Both coincide with holidays (Independence Day and New Year's Day). The seasonal peaks and troughs are less consistent in the OP data series.

Figure 3. Retail and OP liters sold by month, 2007 (partial) through 2014 (partial)



Liquor Sales Establishments

The number of retail establishments selling liquor changed dramatically after privatization. The state now has approximately 1,406 establishments selling liquor, a 327 percent increase from pre-privatization. All but four counties experienced increases in retail establishments selling liquor, with three counties having no increase and one county losing its only establishment. Some counties now have more than five times the number of retail establishments they had prior to privatization.

An interesting point is that although OP liters sold and average price per liter have decreased compared to fiscal year 2011, the number of OP establishments has increased by 12 percent, from 8,031 pre-privatization to 8,972 post-privatization.

Table 3. Count of retail establishments selling liquor by county pre- and post-privatization		
County	Retail establishment count pre-privatization	Retail establishment count post-privatization
State total	329	1,406
Adams	3	6
Asotin	2	7
Benton	5	35
Chelan	5	18
Clallam	4	17
Clark	13	69
Columbia	1	2
Cowlitz	5	23
Douglas	3	9
Ferry	1	2
Franklin	3	14
Garfield	1	0
Grant	10	21
Grays Harbor	8	21
Island	5	16
Jefferson	4	7
King	72	408
Kitsap	8	50
Kittitas	3	10
Klickitat	2	7
Lewis	8	18
Lincoln	4	7
Mason	5	11
Okanogan	8	16
Pacific	6	6
Pend Oreille	3	3
Pierce	32	147
San Juan	4	9
Skagit	7	25
Skamania	1	2
Snohomish	25	143
Spokane	22	104
Stevens	6	11
Thurston	10	47
Wahkiakum	1	1
Walla Walla	2	10
Whatcom	12	47
Whitman	5	9
Yakima	10	48

Table 4 summarizes the number of OP liquor sellers.

Table 4. Count of OP establishments selling liquor by county pre- and post- privatization		
County	OP count pre-privatization	OP count post-privatization
State total	8,031	8,972
Adams	24	24
Asotin	22	24
Benton	192	213
Chelan	178	194
Clallam	102	115
Clark	307	368
Columbia	11	14
Cowlitz	93	99
Douglas	37	37
Ferry	9	29
Franklin	49	55
Garfield	2	4
Grant	93	114
Grays Harbor	117	130
Island	84	90
Jefferson	50	66
King	2,951	3,293
Kitsap	274	304
Kittitas	85	94
Klickitat	34	42
Lewis	90	91
Lincoln	16	15
Mason	64	70
Okanogan	77	90
Pacific	54	57
Pend Oreille	18	20
Pierce	664	758
San Juan	52	64
Skagit	171	183
Skamania	15	21
Snohomish	644	708
Spokane	554	585
Stevens	52	56
Thurston	241	264
Wahkiakum	5	7
Walla Walla	75	80
Whatcom	257	298
Whitman	54	63
Yakima	214	233

Alcohol Distribution – Post-Privatization

Table 5 summarizes alcohol distribution throughout the state.

Table 5. Distribution centers post-privatization	
Liquor distributors	102
Liquor importers	30
Beer distributors	111
Beer importers	11
Wine importers	29
Wine distributors	206
Craft distilleries	78
Distill/rectify	16
Fruit and/or wine distilleries	7
Domestic breweries	1
Microbreweries	261

Revenue Collections

Revenue collections for retail sales during fiscal 2012 increased 6.9 percent year-over-year, a 4.9 percent greater increase compared to 2011. In 2013, retail liquor revenue collections increased 18.1 percent year-over-year, an increase 11 percent higher than the 2012 increase. The three-year moving average as of the end of fiscal year 2014 is 8.4 percent, compared with 9.0 percent as of 2013, 3.1 percent as of 2012 and 2.4 percent as of 2011, so there appears to be a persistent, increasing upward trend.

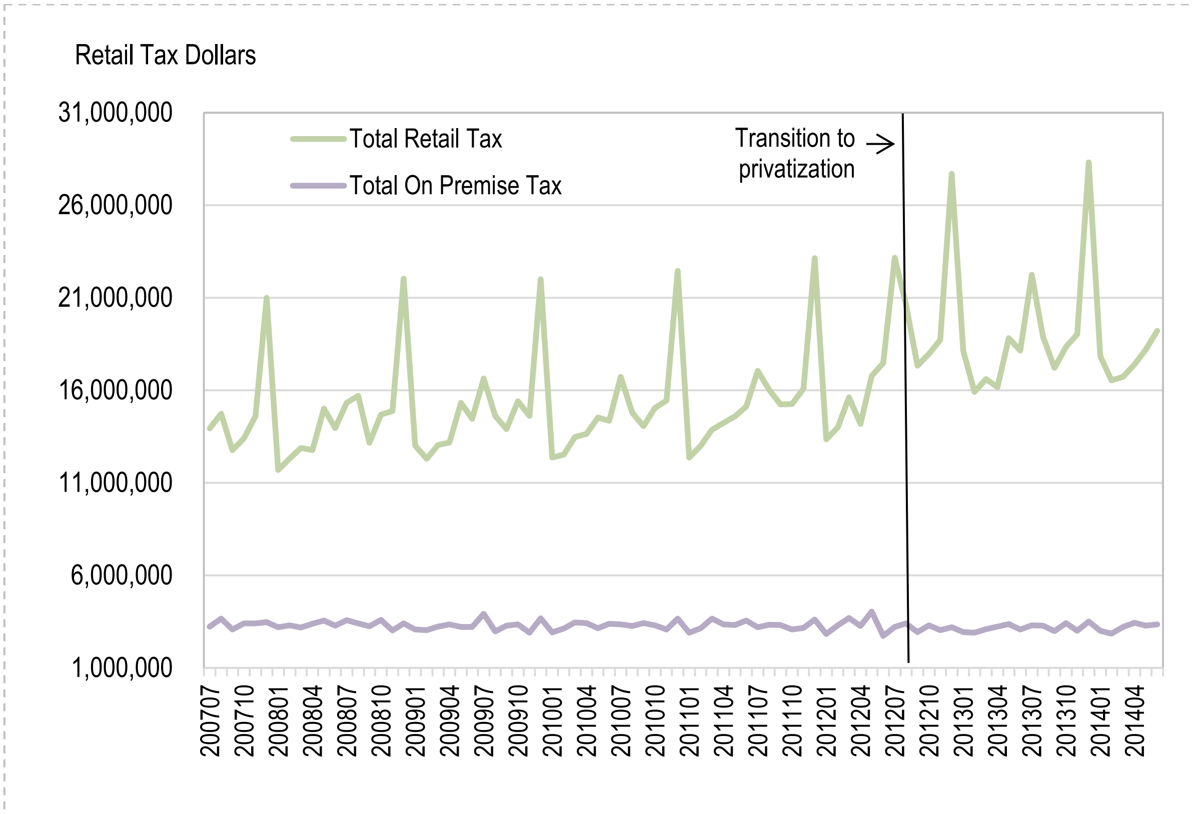
The Office of Financial Management prepared a fiscal impact statement for I-1183 prior to the November 2011 election. It estimated General Fund revenue collections between $216 million and $253 million per year. The revenues are tracking, as estimated, at $229 million during fiscal year 2013 and $230 million during fiscal year 2014.

OP revenue collections have remained relatively constant, with a slight decrease of 4.7 percent during 2013, followed by a 2.5 percent increase during 2014. The fiscal year 2014 revenue for OP sales is about $2 million less than the 2011 fiscal year revenue.

Table 2. Retail and OP revenue collections by fiscal year, total and percentage change from previous fiscal year, 2008–14

Year	Retail revenue collections	Year-over-year percentage change	OP revenue collections	Year-over-year percentage change
2008	169,053,556	n/a	40,180,347	n/a
2009	177,100,256	4.8	39,392,116	-2.0
2010	178,071,451	0.5	39,586,465	0.5
2011	181,692,841	2.0	40,042,288	1.2
2012	194,138,872	6.9	39,580,167	-1.2
2013	229,281,294	18.1	37,713,926	-4.7
2014	229,958,136	0.3	38,675,534	2.5

Figure 4. Revenue collections for retail and OP establishments, 2007 (partial) through 2014 (partial)



Employment

Before privatization, the LCB employed 90 at the Distribution Center and 922 in the state-run stores. The LCB contracted out the transportation of liquor from the Distribution Center to the stores, so the employment related to this activity is not known.

Comparable data are not available in the post-privatization market. However, data for businesses in the standard industrial classification of beer, wine and liquor stores (NAICS code 445310) is available and provides an interesting comparison pre- and post-privatization. While it does not encompass the entire market, it provides a proxy of how the labor market has changed after privatization. The number of workers employed in NAICS 445310 before privatization was 714 in the first quarter of 2012, and in the second quarter of 2013, rose to 1,362, a 91 percent increase. Yet since the economy is rebounding from the Great Recession, we don't know how much of this growth would have happened with or without privatization of liquor sales.

LCB Administration Costs

The total cost for the LCB to administer and support I-1183 for the 2013–14 biennium was $56,438,793, compared with $244,907,733 for pre-privatization (2011–12 biennium). This represents a 77 percent reduction in LCB costs.

Post-privatization

The breakdown of the cost for administration of I-1183 (2013–14 biennium) is outlined below and includes all budgeted costs in the Liquor Revolving Account (501):

- Administration: $28,052,933 (includes board, administrative and information technology programs)
- Regulatory
  - enforcement: $20,521,122
  - licensing: $7,493,225
- Business Enterprise[9]: $371,513

Pre-privatization

Budgeted costs for the LCB prior to implementation of I-1183 (2009–11 biennium, last full biennium prior to privatization):

Fund 501:

- Administration: $43,897,200 (includes board, administrative and information technology programs)
- Enforcement: $16,816,536
- Regulatory: $5,017,077 (licensing)
- Business Enterprise: $170,044,920

Fund 335: (LCB Construction/Maintenance Account – used for the Distribution Center) - Business Enterprise: $9,132,000

[9] Business Enterprise costs refer to the LCB division that includes liquor stores, the Distribution Center, the purchasing office and some headquarter staff.

Appendix One

A-1

To test the pre- and post-privatization effects on the liquor market, we used regression analysis. In this case we incorporate an ordinary least squares model to test four demand characteristics: one, the transition to the privatized market; two, the change in OP average dollars per liter sold; three, the change in population; and four, the underlying price elasticity of demand for retail liquor.

The natural log of retail liters sold by month over the period of June 2007 through April 2014 is regressed on various independent variables with control for seasonality. The independent variables of interest are as follows:

1. PrePost – A (0, 1) indicator variable denoting pre-privatization and post-privatization.
2. LNOnPremise– The natural log of OP liters sold.
3. LNRetailPric –- The natural log of average monthly retail price, dollars per liter.
4. PchangeGT21– The percentage change of population older than 21 years of age.
5. PchangeLT21– The percentage change of population younger than 21 years of age.

Table 7. Regression results

Variable	Parameter Estimate	Standard Error	Significance[10] at 90% confidence
Intercept	16.59790	1.39942	Significant
PrePost	0.23884	0.03648	Significant
LNOnPremise	-0.02241	0.05929	Not Significant
LNRetailPrice	-0.48778	0.29276	Significant
PchangeGT21	0.22896	0.19222	Not Significant
PchangeLT21	-0.23582	0.13645	Significant

The pre post variable (PrePost) is significant and indicates that, after privatization, an additional 0.23 liters are sold per transaction. The natural log of OP liters sold (LNOnPremise) is not significant; however, the negative sign is what we expect, which implies that there is some minimal substitution between retail and OP sales. The natural log of retail price (LNRetailPrice) is significant and the negative sign is what we expect, as retail price increases consumers then demand fewer liters.

The parameter estimate for the natural log of retail price can be directly interpreted as the price elasticity of demand for retail liters sold — that is, for every 1 percent change in retail price, the quantity demanded will change by 0.49[11] percent. The percentage change in population greater than or equal to 21 years of age (PchangeGT21) is not significant; however, the positive sign is what we expect. The more persons of age 21 years or older there are, the more legal age drinkers there are. Percentage change in population under the age of 21 (PchangeLT21) is significant and the sign is what we expect. The fewer persons under the legal drinking age there are, the more of them "age out" into the legal drinking age category of 21 years and older.

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[10] Statistical significance indicates a measure of confidence that the causal hypothesis estimate is not due purely to chance; in this case 90 percent is used. We are 90 percent confident the estimate is correct.

[11] The OFM fiscal impact statement for I-1183 estimated the price elasticity of demand to be 0.49.