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Washington State spirits privatization: How satisfied were liquor purchasers before and after, and by type of retail store in 2014?

Thomas K. Greenfield, Edwina Williams, William C. Kerr, Meenakshi S. Subbaraman, and Yu Ye

Alcohol Research Group, Public Health Institute, Emeryville, CA 94608

Abstract

Background—In 2012 Washington State ended a wholesale/retail monopoly on liquor, permitting sale of spirits in stores with > 10,000 square feet. Implementation resulted in average price increases, but also five times the stores selling liquor.

Objectives—As part of a privatization evaluation, we studied pre-post and between-store-type purchase experiences.

Methods—A 2010 Washington State Liquor Control Board (LCB) survey of liquor purchasers ($n=599$), and the 2014 baseline of a repeated telephone survey (1,202 residents; $n=465$ purchasers), each included 10 LCB questions on satisfaction with purchase experiences, each attribute with graded response scale A=4 to D=1 and F (0=fail). Analyses used t-tests for satisfaction differences by time and ANOVA for 2014 between-store satisfaction-level differences.

Results—Five purchase features were rated more favorably after privatization ($p < 0.05$ – 0.001), including product supply, staff professionalism, location convenience, store hours, and prices (though price rated lowest both times); selection offered, courtesy, and checkout speed were unaltered, and number of staff and staff knowledge declined (both $p < .001$). Eight consumer experiences differed by store type: 5 satisfaction aspects (supply, selection, number of staff, operating hours and checkout speed) were highest for liquor superstores, while location convenience favored grocery and drug stores, and price satisfaction favored wholesale (Costco) stores, with staff knowledge highest at liquor stores.

Conclusions—Satisfaction with liquor purchases increased after privatization for half the consumer experiences. Availability (location convenience and store hours) was important to liquor purchasers. Such results are relevant to sustained support for the policy of privatizing spirits retail monopolies.

Correspondence: Tom K. Greenfield, PhD, Scientific Director, Alcohol Research Group, PHI, 6001 Shellmound Street, Suite 450, Emeryville CA 94608-1010; main telephone: (510) 898-5800; mobile: (510) 326-1555; tgreenfield@arg.org.

Declaration of Interest

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Keywords

Alcohol monopolies; privatization; liquor marketing; consumer satisfaction; purchase experience; spirits sales; pre-post comparison; price; availability

Introduction

In June, 2012 following approval of Initiative 1183, Washington State ended a wholesale and retail monopoly on liquor, permitting sale of spirits in stores with >10,000 square feet or in privatized contract stores auctioned after I-1183's passage. In addition, the initiative eliminated the three-tier system requiring distinct production, wholesale and retail sectors, introduced in all states following the repeal of Prohibition, the only state thus far to do this. Because the initiative, after a previously unsuccessful effort to pass it, was written so as to assure that the State would have equal revenues from spirits sales after privatization as before passage, taxes were set high, and resultant prices increased when private profit taking was included. Empirically, the initiative's success resulted in an estimated 15.5% mean price increase for the standard 0.75 l bottle size and 4.7% increase for the 1.75 l size (Kerr, Williams, & Greenfield, 2015). Washington State now has the highest effective spirits tax rate of any state (monopoly or license state) in the US (Kerr, Patterson, & Greenfield, 2014). At the same time, about five times as many stores were selling liquor after privatization, including supermarkets, drug stores, liquor superstores, warehouse stores like Costco and others.

The spirits privatization initiative represents an interesting policy 'intervention' in which two important alcohol control policy levers, each of which evidence suggests are important ways of affecting alcohol consumption and alcohol-related problems in themselves—increasing taxes/price, and increasing availability (Babor et al., 2010)—appear at the same time to be pulling in opposite directions (i.e., increased spirits taxes/price potentially reducing spirits consumption and increased availability of spirits potentially increasing consumption). Our project is evaluating a range of privatization outcomes, with this study focused on pre-post and (after privatization) between-store type purchase experiences. Purchase experiences is one aspect of attitudes and opinions related to a change in policies on the distribution of alcohol, which some earlier research has addressed. For example, six years after Prohibition was repealed in the US, 30% surveyed said they would have voted to make the country dry again (Gallup Organization, 1939). Near the peak of per capita alcohol consumption, by 1984, only 17% favored a law prohibiting alcohol sales (Gallup Organization, 1984), but after another 'drying' period had begun, those favoring banning alcohol sales rose to 30% by 1988 according to ABC News (1988). For Washington State, Subbaraman and Kerr (2016) found that in an April 2014 survey, other things being equal, those who voted Yes on the Sprits Privatization Initiative (I-1183) had almost eight times the odds of wanting to change their votes compared with those who said they had voted No, suggesting some dissatisfaction with the change. However, not surprisingly, spirits drinkers and purchasers (as studied here) were more favorable to privatization.

Prior to the privatization, in December 2010 the Washington State Liquor Control Board (LCB) sponsored a survey of liquor purchasers (599 customers at the LCB monopoly stores, studied here) as well as non-customers, aimed at characterizing the satisfaction with aspects of the stores. From January to April, 2014 our project conducted the baseline wave of an ongoing representative, random digit dialed (RDD) telephone (landline and cell phone) survey of 1,202 state residents, of whom 465 were liquor purchasers (studied here) of legal age (≥ 21). Here, based on the two surveys before and after the privatization implementation, we examine differences in satisfaction with consumer purchasing experiences from state stores before, to private stores after, using a set of 10 identical satisfaction questions. These same items are used in 2014 to compare the experiences between the types of stores “at which you last purchased liquor”.

There is a large and long-standing literature on satisfaction with human and health services, e.g., (Attkisson & Pascoe, 1983; Bleich, Özaltın, & Murray, 2009; Greenfield & Attkisson, 1989; Lebow, 1983; Sanda et al., 2008). Customer satisfaction with corporate services has also been addressed in the marketing and retail literature, e.g., (Dixon, Freeman, & Toman, 2010; Giese & Cote, 2000; Taylor & Baker, 1994). Giese and Cote (2000) noted a wide variation in definitions of consumer satisfaction (as also true for the human services satisfaction literature); they argued a common element is the recognition that consumer satisfaction is “comprised of three basic components, a response pertaining to a particular focus determined at a particular time”—often post purchase (executive summary). They also noted that at the time of writing (and likely today) the variation in instrumentation means it was impossible to disentangle differences in how satisfaction is operationalized from differences in results, as has plagued satisfaction measurement in human services too (Greenfield & Attkisson, 1989) leading to calls for standardization of measures (Greenfield & Attkisson, 2004). In investigating changes in satisfaction over time, using the same instrument at both times should help ameliorate some of this difficulty, as would administering the items the same way (by telephone) to the same type of consumers (those of legal drinking age who purchased liquor in the prior year).

It is believed that service quality and customer satisfaction influence both purchase intentions and choice of service environments (Taylor & Baker, 1994); empirical evidence was mustered by Taylor and Baker (1994) to suggest that the interaction between service quality judgements (or longer-term attitudes) are influenced by shorter-term consumer satisfaction, and together these variables add to the explanation of purchase intentions. It should be noted that many satisfaction instruments assess both quality judgements and satisfaction with facets of services provided (although not necessarily their interaction, *per se*). Recent commentators have argued that while seeking to identify delighted customers may be over-reach, “service failures not only drive existing customers to defect—they also can repel prospective ones”, emphasizing attending particularly to *dissatisfaction* levels (Dixon, et al., 2010).

The aims of the present study, in summary, are to use two identically worded 10-item satisfaction scales, administered in telephone surveys before and after the privatization occurred, to examine (a) differences in satisfaction with consumer purchasing experiences in state stores initially (in late 2010) versus private stores after spirits privatization (in 2014);

then (b) to use the same items in the 2014 survey to compare the purchase experiences between the various types of private store the respondents reported as the place they last purchased liquor once the liquor marketing had been privatized.

Method

Data Sources

Data come from two state-representative population surveys conducted by telephone. The first was a 2010 state-wide survey, before privatization of spirits sales, sponsored by the Washington State Liquor Control Board (LCB) interviewing liquor purchasers (n=599) of legal purchasing age (≥ 21), and the second was the 2014 baseline wave of an ongoing representative telephone (landline and cell phone) survey involving 1,202 state residents, of whom 465 were legal age purchasers (≥ 21), studied here; the survey was conducted for a Washington State Spirits Privatization Grant supported by the U.S. National Institute on Alcohol Abuse and Alcoholism.

The LCB survey was conducted under State LCB contract by Elway Research, Inc. (a market research firm) with landline telephone surveys conducted in English between December 26 and 28, 2010. Of those reached (response rate not reported), 52% of the liquor purchasers in LCB-authorized (monopoly) stores were women; by age, 10% were 21–35, 27% 36–50, 40% 51–64, and 23% ≥ 65; 60% were employed, 8% unemployed and 29% retired. They were well distributed throughout the state and by rural, suburban, urban classification, with 96% of the purchasers reporting being drinkers themselves.

For the Spirits Privatization project survey, data were collected between January and April in 2014 under contract by ICF Macro, Inc., of Burlington, Vermont, a firm specializing in scientific-grade telephone and other surveys. We used here the baseline wave of an ongoing representative telephone (landline and cell phone) survey of residents in Washington State to evaluate the privatization policy, including retail store types and satisfaction with store features. The analytic sample used here includes 465 adults aged at least 21 who reported purchasing liquor (spirits) during the prior 12 months. Sampling was based on a state-wide list-assisted random digit dialed (RDD) strategy, including a household randomization procedure to select one adult (age ≥ 18) per landline household using a Kish selection algorithm. For the cell-phone sample (approximately 50% of the sample), any adult (age ≥ 18) answering the telephone and reporting being in a safe location (i.e., not driving or in a place where their answers could be overheard) was considered eligible. The initial sample consisted of 1,202 adult respondents with a cooperation rate of 50.9% for landlines and 60.9% for cell phones. Of these, 465 were 21 and older and currently (within the prior 12 months) purchased spirits.

Measures

Customer satisfaction was assessed at both times using the same Likert-type items included in the pre-privatization Washington State LCB survey. Satisfaction with retail purchase experiences used the 10 retained items, each asking the respondent to give a grade, from A (best) to D (worst) and F (fail) to each of 10 features of the purchasing experience. Grades

were recoded to numeric values with F=0, D=1, C=2, B=3 and A=4 (as in the LCB survey). The 10 satisfaction items included courtesy of staff, professionalism of staff, adequate supply of product, selection of liquor offered, level of staff knowledge, number of staff to help, store prices, convenience of store locations, speed of checkout, and store's operating hours. In addition to these, a standard set of demographic characteristics were asked, including for these analyses, gender, age (categories already noted), and family income: < \$30,000, \$40,000 to < \$50,000, \$50,000 to < \$80,000, and \$80,000. Types of retail stores purveying liquor post privatization in 2014 were classified as follows: Liquor Superstores (e.g., Bevmo, 'Total Wine and More'), Liquor Stores, Grocery Stores, Drug Stores, Department Stores, Wholesale outlets available to the public (e.g., Costco), and 'Other'.

Analyses

We compared pre- to post-privatization levels and, in the 2014 survey, levels of satisfaction (scored 0 to 4) between retail store types. Weighted analyses used t-tests for the between-time mean pre-post privatization differences in satisfaction score, and one-way Analysis of Variance (ANOVA) to examine differences between store types (as the factor of interest), with separate analyses for each of the 10 satisfaction attributes in both cases.

Results

Overall (see Table 1), five of the 10 purchase experience features were rated more favorably after privatization ($ps < 0.05$ to < 0.001), including product supply, staff professionalism, location convenience, store hours and even store's prices. As regards store locations, it might be noted, though, that in the 2014 post-privatization survey 49.5% reported being within 10 minutes of a store and a further 19% were from 10–15 minutes of a store selling spirits, in the 2010 LCB survey, 68% reported they were within 10 minutes of a monopoly store and a further 23% said they were within 10–15 minutes of such a store. As regards the greater perceived convenience (greater satisfaction after privatization) there appears to be some discrepancy with the subjective reports of travel time favoring the monopoly stores. Notably, even prices received a higher mean grade after privatization than before, despite the objective mean price increase (Kerr, et al., 2015) as documented in the introduction. Conversely, at both times price garnered the lowest satisfaction ratings of all 10 attributes assessed. Liquor selection offered, staff courtesy, and checkout speed were unaltered, and 'number of staff to help' and 'level of staff knowledge' both declined ($p < 0.001$) from 2010 before privatization (ranking LCB stores) to the same experiences rated after privatization. Table 1 also compares December 2010 (pre-privatization) to 2014 (post-privatization) mean attribute rating scores for men and, separately, women. Women tend on average to be slightly more satisfied with their liquor shopping experience than men at both times, while there were few overall differences observed by age and income levels (results not shown). Additionally, (results not shown, available in Supplemental Tables) those with lowest family incomes in 2014 (less than \$30,000) appeared to rate price slightly less favorably in 2014 (mean 2.84) than those exceeding this income level (range 2.91 to 2.98), although significance of this apparent difference was not tested.

With regards to 2014 differences in satisfaction levels between store types, considering the store where the last purchase was made (see Table 2), on five of the 10 consumer-experience satisfaction scores—adequate supply of product, selection of liquor offered, level of staff knowledge, number of staff to help, and convenience of store location—F-tests indicated significant overall differences by store type at $p < 0.001$; overall satisfaction levels differed on three further experience attributes—store hours, speed of checkout and prices—at $p < 0.01$. Post-hoc analyses indicated five satisfaction aspects (supply, selection, number of staff to help, operating hours and checkout speed) were highest for liquor superstores, while location convenience favored grocery and drug stores, and price satisfaction favored wholesale (Costco) stores. Only one attribute—staff knowledge—was highest for liquor stores.

Discussion

Two of the 10 satisfaction variable means assessed pre- and post-privatization favored the LCB monopoly stores overall, namely ‘number of staff to help’ and ‘level of staff knowledge’. The State LCB prided itself in their investment in proper staffing and staff training, which suggests that these staff attributes may have been noticed by consumers, and that overall post-privatization staffing and/or staff training could have declined. Although comparative data are not available, anecdotally we note that consumers are not always happy with the performance of government employees, for example at the Department of Motor Vehicles (DMV), so this is an important finding related to the original retail monopoly. Conversely, there were positive pre- to post-privatization differentials in satisfaction seen for five of 10 assessed features. Although an increase in satisfaction with location convenience might be expected, due to the large increase in number of stores selling liquor post privatization, as noted in Results, reports of time to drive to the store actually favored the LCB stores. Perhaps the higher location convenience seen after privatization also relates to being able to purchase liquor when shopping for groceries or other commodities. Satisfaction with store hours (as might be expected) was also rated higher after privatization. In addition, staff professionalism, and even, perhaps surprisingly, prices were move favorably rated after privatization (though as noted above, in both surveys prices were the least favored attribute). Regarding prices, although objectively the prices went up on average 15.5% for the 75 ml size and 4.7% for the 1.75 l size (Kerr, et al., 2015), as noted in that publication “persistent drinkers looking for low prices will be able to find them in certain stores” (Kerr, et al., 2015, Abstract). This is particularly true for the large size of spirits containers, for certain brands available in the wholesale Costco store (which coincidentally was the corporation most involved in funding and promoting the passage of the privatization initiative). Some general evidence that heavier alcohol consumers (who account for a larger proportion of spirits sales) shop for bargains is a US national finding that the heaviest 10% of drinkers pay much less per spirits drink on average (\$0.72) than the bottom 50% of lighter drinkers (\$4.80) (Kerr & Greenfield, 2007, p 1917). There is one additional indication that consumers may have been aware of the increased spirits prices and have been responsive to the price hike is that there is evidence that those close to the Oregon border have been purchasing liquor at lower-priced monopoly stores near the Washington border with one study indicating a 21% increase in sales at Oregon border stores post Washington’s

privatization (LoPiccolo, 2014). The same was found to be true in border stores in Idaho, also a monopoly state (Cull, 2014). Given the small pre- to post-privatization increase in satisfaction with liquor prices on the last shopping occasion, one wonders also whether the expectation that the open market brings competition sways consumers' attitudes on price more than the reality of average price increases. This indicates that consumer behavior not only is affected by objective features of the landscape but also (possibly ill-founded) perceptions, as is a tenet of behavioral economics (Sloan, Eldred, & Xu, 2014). Although direct evidence for this is currently lacking, it seems plausible that perceptions favoring access and price after privatization (despite objective travel-time and price differences favoring monopoly stores) may have been affected by increases in spirits promotions and marketing after privatization. Consumers' sense of greater choices, even if the selection of available products in some private store types was in fact lower than in the original monopoly stores, may also have played a part. Initially, after privatization, it appeared that availability was trumping price. A June 1 2014 news article stated: "Despite the jump in prices, the number of liters sold increased by 1.1 million (out of a total of 42 million liters) in the 16 months following the change to liquor privatization. However, the most recent data indicate sales have slowed, according to the Washington Department of Revenue" (Gallagher, 2014). The same article noted that of the previous state-run stores auctioned to private entrepreneurs as of April 2014 only 113 were still open, a 32% decrease, with many unable to compete with big-box stores which can achieve quantity discounts.

Conclusions

Satisfaction with liquor purchase experiences increased after privatization for half the features of the purchase experience assessed both before and after passage of Initiative 1183, and decreased for two attributes (both related to staffing—staff knowledge and number of staff to help). Availability (location and hours), perceived product supply, and staff professionalism appeared to be the most favored for open-market liquor purchasers. After privatization it is still possible to find relatively inexpensive spirits products, so perhaps it is not as surprising that price was rated somewhat better after, than before, privatization. However, overall, price was still the least favorable attribute, at both times, of 10 repeated items, Washington after privatization having the highest spirits taxes of any U.S. state (Kerr, Patterson, & Greenfield, 2016).

Given that, as noted earlier, service quality and customer satisfaction influence both purchase intentions and choice of service environments (Taylor & Baker, 1994), the overall increase in satisfaction for liquor stores after privatization could potentially lead to greater purchases in store types with higher overall satisfaction. However, after an initial increase in spirits sales after privatization there was a downturn in sales, likely due to increased spirits price (González, 2014; Kerr, et al., 2015), as well as lowering of beer taxes through elimination of a recession-related beer tax enhancement, translating into lower prices for beer. Thus spirits price effects and beverage substitution may have trumped liquor availability and store satisfaction effects, so that spirits consumption did not tend to increase overall after privatization.

One way of examining attitudes toward the privatization experience is to consider how people said they did vote on the initiative and how, after privatization they said they now would vote (assessed in 2014). As mentioned in the introduction, what has been found is that there were larger rates of saying one had voted yes, but post privatization one would vote no, than the reverse, using retrospective ‘how did you vote’ and ‘how would you vote today’ questions in the 2014 survey and controlling for demographics and personal characteristics (Subbaraman & Kerr, 2016). However, the same analysis found that a larger proportion of those who believed the I-1183 was a success were spirits drinkers, which has been the focus of the present paper. In later work it will be important to examine how purchase experiences, as well as harms experienced, or perceived as related to privatization more broadly (purchasers and non-purchasers), might affect subsequent degree of support for the privatization initiative. The current findings suggest that there was predominantly an increase in level of satisfaction with liquor purchases from before to after privatization (50% of the experiential facets assessed), with a decline seen only in staff knowledge and helpfulness that likely were hallmarks of the monopoly system’s investment in staff training. The extent to which spirits purchasers, who tended to favor privatizing sales (Subbaraman & Kerr, 2016), are affected by objective versus subjective qualities in making their ratings, remains an interesting but unanswered question. With a number of political moves within remaining US control states toward privatizing state alcohol monopolies, as well efforts to regulate and market spirits in ways that are “consumer friendly”, such data remain an important consideration for public health researchers and advocates, who generally support the value of retaining monopolies where they exist as an effective, evidence-informed alcohol control measure (Babor, et al., 2010).

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Table 1Mean Customer Satisfaction^a with 10 Attributes of Liquor Purchase Experience by Time (Pre- Post Privatization) and Demographics (2014)

		Total			Male			Female		
		2010	2014		2010	2014		2010	2014	
<i>Sample N</i>		599	465		288	226		310	239	
Courtesy of staff		3.50	3.54		3.43	3.51		3.57	3.57	
Professionalism of staff		3.39	3.45*		3.34	3.42		3.43	3.51	
Adequate supply of product		3.36	3.50***		3.27	3.47		3.44	3.53	
Selection of liquor offered		3.27	3.29		3.20	3.20		3.37	3.37	
Level of staff knowledge		3.22	2.94***		3.15	2.88		3.29	3.00	
Number of staff to help		3.18	3.02***		3.09	3.00		3.27	3.05	
Store's prices		2.23	2.91***		2.11	2.83		2.36	2.99	
Convenience of store location		3.39	3.51**		3.39	3.44		3.48	3.57	
Speed of checkout		3.39	3.35		3.32	3.33		3.46	3.38	
Store's operating hours		3.13	3.57***		3.01	3.53		3.25	3.61	
Overall mean score (10 areas)		3.21	3.31		3.13	3.26		3.29	3.36	

^a Grade ratings recoded as: F=0, D=1, C=2, B=3, A=4;

Note: t-test for overall pre-post comparison:

* p < 0.05

** p < 0.01

*** p < 0.001

Weighted Average ^a (and Overall ANOVA Comparison) of Customer Satisfaction with 10 Attributes of Liquor Purchase Experience by Store Type in 2014

	Total	Liquor Superstores	Liquor Stores	Grocery Stores	Drug Stores	Department Stores	Wholesale	Other	F
Sample <i>n</i>	465	35	31	178	13	80	49	36	
Courtesy of staff	3.53	3.78	3.23	3.56	3.63	3.44	3.60	3.44	1.72
Professionalism of staff	3.47	3.76	3.22	3.51	3.49	3.31	3.59	3.59	1.98
Adequate supply of product	3.50	3.83	3.57	3.48	2.91	3.49	3.47	3.70	5.48***
Selection of liquor offered	3.28	3.81	3.57	3.12	2.94	3.22	3.38	3.53	7.17***
Level of staff knowledge	2.89	3.55	3.63	2.78	2.59	2.72	2.79	3.03	7.36***
Number of staff to help	3.00	3.60	3.41	2.96	2.97	2.84	2.76	3.06	5.87***
Store's prices	2.90	3.24	2.81	2.69	2.53	2.95	3.32	3.14	3.52**
Convenience of store location	3.53	3.23	3.58	3.66	4.00	3.60	3.37	3.07	21.10***
Speed of checkout	3.35	3.71	3.62	3.33	2.91	3.25	3.09	3.48	3.08**
Store's operating hours	3.57	3.83	3.68	3.66	3.65	3.57	3.25	3.32	3.71**

^aGrade ratings recoded as: F=0, D=1, C=2, B=3, A=4;

One-way Analyses of Variance (ANOVA) F-tests for store-type:

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

Note: bold indicates significantly higher values in post-hoc tests