

Opinions on the Privatization of Distilled-Spirits Sales in Washington State: Did Voters Change Their Minds?

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ABSTRACT. Objective: In November 2011, voters in Washington State approved Initiative 1183 (I-1183), which ended the government monopoly on distilled-spirits sales. The current study examined the relationship between demographics, spirits use, and voting outcomes, as well as how these variables related to wanting to change one's vote. **Method:** The sample consisted of 1,202 adults recruited through random-digit-dial methods and reached via telephone between January and April 2014. Bivariate tests and multivariable regressions were used for statistical analyses. **Results:** Most notably, those who voted Yes on I-1183 had almost eight times the odds of wanting to change their votes compared with those who voted No. Older age, higher education, and being a spirits buyer/drinker were significantly associated with voting (vs. not voting). Among nonvoters, a larger proportion of those who

reported that I-1183 was a success (vs. not) were spirits drinkers/non-buyers. Those who reported that I-1183 was not a success were more likely to report that the number of liquor stores should be decreased. Opinions on taxes were not related to wanting to change one's vote or thinking that I-1183 had been a success. **Conclusions:** The result of the I-1183 election likely would have been different if voters could know their future opinions of the actual situation resulting from privatization. This finding is particularly important for states considering privatization. Results also indicate that spirits drinkers/buyers may be more invested in privatization than nonbuyers and that the increased availability of spirits may affect opinions regarding privatization. (*J. Stud. Alcohol Drugs*, 77, 568–576, 2016)

AFTER THE PROHIBITION ERA, U.S. states dealt with markets for alcoholic beverages in a variety of ways. In Washington State, as well as a number of other states, the government created a monopoly on the distribution and retailing of distilled spirits. Other states enacted a “three-tier system,” which was designed to prevent aggressive pricing policies believed to be facilitated by vertical integration. The three-tier system essentially regulates the ownership of the production, distribution, and retailing of alcoholic beverages, and keeps the production, wholesale, and retail market sectors separate.

In November 2011, voters in the state of Washington approved Initiative 1183 (I-1183) with 58.7% voter approval. I-1183 ended the state monopoly on spirits sales as of June 1, 2012, and eliminated a number of state regulations related to the distribution and pricing of spirits (Ballotpedia, 2011). Producers can now circumvent the wholesale tier and sell directly to retailers. This makes Washington the first state to fully privatize both the distribution and retailing of spirits (other states such as Iowa have privatized the retail tier only) and the first state to have neither government control of spirits sales nor a mandated three-tier system. Full privatization of spirits sales is the most fundamental statewide alcohol policy change since National Prohibition was repealed in

1933, making this natural experiment a highly significant target for evaluation.

As opposed to legislation written by the state or local government, initiative measures can be proposed by individual citizens or corporations. Costco Wholesale Corporation, an American membership-only warehouse store, was the primary funder and promoter of I-1183; Costco spent more than \$20,000,000 on I-1183, whereas the next largest donors, supermarket chains Safeway, Inc., and Trader Joe's, each spent \$50,000 (Ballotpedia, 2011).

Privatization affects the alcoholic beverage environment in two primary ways: increased alcohol availability and changes in price. Specifically, stores such as grocery and drug stores that were previously prohibited from selling spirits now offer a variety of spirits products. In addition, Washington's new tax rates on spirits are, by far, the highest in the United States. These taxes include a number of different elements but can be summarized as 10% of the wholesale price (paid by the distributor) plus 17% of the retail price (paid by the retailer), in addition to a spirits volume tax (which amounts to \$2.83 per 750 ml) and a 20.5% ad valorem tax on top of the retail price (Kerr et al., 2015). Our study of price changes following privatization found that spirits prices rose 15.5% on average for 750 ml containers and 4.7% on average for 1.75 L containers, with substantial variation across store types and brands (Kerr et al., 2015). The changes in licensing resulted in about 1,600 stores selling spirits after privatization, compared with 330 stores before (Washington State Liquor and Cannabis Board, 2015).

Past studies have shown that the general public tends to favor state controls on alcohol sales. Results from a probability sample of adult residents of Michigan showed that

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63% of respondents supported government control to limit the number of alcohol outlets (Wagenaar & Streff, 1990). A similar study of privatization in Ontario, Canada, indicated that the majority (73%) of respondents disagreed with privatization and preferred government control (Anglin et al., 2003). Data from the five government-controlled Nordic alcohol monopoly companies (e.g., Alko of Finland, Systembolaget of Sweden, and Vinmonopolet of Norway) showed that from 57% (Faroe Islands) to 76% (Sweden) of residents living in Nordic countries during 2013–2015 supported government monopoly of alcohol sales (Hallberg & Österberg, 2015). Support for government controls might vary by race/ethnicity and other demographics; Latinos, females, and alcohol abstainers have tended to favor limiting the number of liquor licenses in their communities (Jones-Webb et al., 1993), whereas older adults favored policies that restrict alcohol use in public places (Latimer et al., 2001). Perhaps not surprisingly, high-risk drinkers, who are the primary targets of price and availability controls, have been generally less likely to disagree with privatization compared with other drinkers (Anglin et al., 2001, 2003; Greenfield et al., 2007b).

Government alcohol policies are more likely to be both enacted and sustained when the majority favors a policy, whereas softening public opinions may lead to regulations being weakened or overturned (Greenfield et al., 2004; Latimer et al., 2003). This is why in studying outcomes of the Washington privatization initiative and how implementation evolves over time, periodic assessments of public opinions and attitudes toward the perceived outcomes are particularly important. However, there is a dearth of studies of opinions and attitudes following major alcohol legislation (Wagenaar & Toomey, 2000). Studies of the federally mandated warning label on alcoholic beverages showed that already high favorability for the container warning increased following its 1989 implementation (Greenfield et al., 2007a; Room et al., 1995). This contrasted with other policy options like those on increasing alcohol taxes or reducing availability, which significantly declined (Greenfield et al., 2007a; Room et al., 1995).

Rationale for current study

Because of the novelty of I-1183, no prior study has examined variables that may predict how people vote for policies regarding full spirits-sales privatization in the United States. Furthermore, states that currently have government control on spirits sales may follow Washington's suit and switch to privatization. Thus, understanding predictors of voting outcomes could inform how similar measures in other states considering privatization might result. Specifically, this study examined the relationship between demographics, spirits use, and voting outcomes, as well as how these variables relate to the odds of wanting to change one's vote. By summarizing direct experiences with privatization via objective

voting questions, such as whether voters have changed their minds regarding privatization, we are able to gain a better understanding of subjective responses to privatization of spirits sales in Washington State. These subjective responses and experiences are relevant to potential privatization measures in other states and countries.

Method

Sample

The sample consists of 1,202 adult (ages 18 and older) participants recruited from January to April 2014. Survey sampling and interviews were conducted by ICF International (Fairfax, VA). Participants were selected through random-digit-dial methods and reached via telephone. About half of respondents were selected from mobile phone exchanges and interviewed on mobile phones. The American Association for Public Opinion Research (AAPOR) has extremely detailed standardized formulas for co-operation rates in U.S. survey research (AAPOR, 2000); AAPOR Cooperation Rate 2 was 55.9% (50.9% for the landline and 60.9% for mobile samples). At survey completion, participants were issued \$10 gift cards. Survey completion took about half an hour on average.

Measures

Voting outcomes were determined using the question, "Did you vote for or against proposition 1183 privatizing liquor sales in 2012?" We examined predictors of voting versus not voting, as well as voting Yes versus voting No (among voters only). To understand whether people would vote the same way given the changes since privatization, we also examined correlates of wanting to change one's vote (among voters only). Changing vote outcomes were determined using the question, "Would you still vote the same way given your current understanding of the proposition's effects?" We also asked nonvoters, "Do you think that proposition 1183, privatizing liquor sales, has been a success?" in order to understand the opinions of those who did not vote. "Proposition" and "initiative" are used interchangeably in this article.

Spirits drinker status (yes/no) was determined based on the question, "How often do you usually have drinks containing liquor, including scotch, bourbon, gin, vodka, rum, and so on?" Participants who responded with at least yearly were classified as spirits drinkers. Spirits buyer status (yes/no) was based on whether the respondent had purchased spirits in the past 12 months. These variables were combined to create a three-category spirits drinker/buyer variable (i.e., non-spirits drinker/nonbuyer, spirits drinker/nonbuyer, spirits drinker/buyer); this three-category variable was a primary predictor of interest.

Policy opinions of interest were the following: (a) “Do you think taxes on **Liquor** should be increased, decreased or remain the same?” (b) “Do you think taxes on **Beer** should be increased, decreased or remain the same?” (c) “Do you think that the number of stores selling **Liquor** should be increased, decreased or remain the same?” (d) “Do you think youth alcohol abuse has increased, decreased, or remained the same since liquor sales were privatized in June of 2012?” and (e) “Did you vote in favor of Proposition 502 legalizing marijuana production and sales to adults?”

All five of these questions also allowed for “I don’t know” and “refused.” responses. Those who refused were excluded from analyses. Policy opinions were examined as predictors of wanting to change one’s votes and as correlates of thinking that I-1183 has been a success. These policy opinion questions were selected based on the known effects of I-1183 on tax rates and spirits availability, and on the consequences of privatization in other locations. The question regarding marijuana legalization (categorized as yes/no/did not vote) was analyzed as an outcome to better understand whether specific characteristics are associated with voting on I-1183 in particular or voting in general.

We used the following demographic variables as predictor and control variables: gender, age, race (White, Black or African American, American Indian or Alaska Native, Asian/Hawaiian/Pacific Islander, multiracial), ethnicity (Hispanic, non-Hispanic), education (high school diploma or less, some college, college graduate, graduate school), and employment (full-or part-time employed, retired, unemployed). We controlled for these demographics in all multivariable analyses, as well as weekly number of drinks and weekly number of spirits drinks. Weekly number of drinks was derived from the questions, “Considering all types of alcoholic beverages, on how many days in the past month, that is the past 30 days, did you have at least one drink of any alcoholic beverage?” and “On the days that you drank in the past 30 days, how many drinks did you drink on average?” Weekly number of spirits drinks was derived from the questions, “Now thinking of liquor drinking only, on how many days during the past month, that is the past 30 days, did you have at least one drink of liquor?” and “On those days when you drink these liquor drinks, how many liquor drinks do you typically have? In this question, one drink is equal to one shot of liquor or 1.5 ounces.”

Statistical analyses

First, we assessed whether demographic and spirits drinker/buyer variables predicted whether respondents voted and how respondents voted on I-1183 (among voters only) using logistic regressions. We next examined predictors of changing one’s vote on I-1183 with logistic regression (among voters only). We then stratified by how respondents actually voted (i.e., for or against) and again used logistic regression

to identify correlates of changing one’s vote separately for those who voted for I-1183 and those who voted against I-1183. Finally, we used bivariate chi-square and *t* tests to detect possible differences in demographics, spirits drinker/buyer status, and policy opinions across nonvoters who viewed I-1183 as successful versus unsuccessful. Sampling weights were used in all analyses to adjust for the probability of selection introduced during the sampling design. All analyses were performed in Stata Version 13 (StataCorp LP, College Station, TX).

Results

Table 1 describes demographics, drinking variables, and policy opinions for the sample overall, those who voted Yes on I-1183 ($n = 425$, or 32.6% of the sample overall), those who voted No on I-1183 ($n = 450$, or 33.9% of the sample overall), and those who did not vote on I-1183 ($n = 241$, or 26.4% of the sample overall).

Predictors of Initiative 1183 voting outcomes

Table 2 shows adjusted odds ratios (ORs) from weighted logistic regressions of demographics and drinking variables regressed on I-1183 voting outcomes. Older age, more education, being a spirits drinker/buyer (vs. being neither), and fewer weekly drinks all significantly predicted voting on I-1183 (vs. not voting). Of note, older age and higher education also significantly predicted voting on Initiative 502 (legalization of cannabis) in Washington, although spirits drinker/buyer status and weekly number of drinks did not (results not shown).

The only significant predictors of voting Yes on I-1183 were Hispanic ethnicity and being a spirits drinker/buyer; Hispanics had 0.30 times the odds of voting Yes (vs. voting No) compared with non-Hispanics, whereas spirits drinkers/buyers had double the odds of voting Yes relative to spirits nondrinkers/nonbuyers.

Predictors of changing vote on Initiative 1183

In the sample overall, 11% of those who voted would change their vote (Table 1). However, among those who voted Yes, 20% would change their vote, whereas among those who voted No, only 4% would change their vote. Spirits drinkers/nonbuyers had lower odds of wanting to change their vote than spirits nondrinkers/nonbuyers (OR = 0.15), whereas those who voted Yes had 7.77 times the odds of wanting to change their votes compared with those who voted No (Table 3, first data column). Among those who voted Yes, men had lower odds of wanting to change their votes than women (OR = 0.39), and respondents who believed that the number of liquor stores should be decreased had 5.91 times the odds of wanting to change their votes

TABLE 1. Demographics and policy opinions for Washington State residents (percentages; means and 95% confidence intervals)

Variable	Sample overall (N = 1,202)	Voted Yes on I-1183 (n = 425)	Voted No on I-1183 (n = 450)	Did not vote on I-1183 (n = 241)
Male	49.5%	48.9%	54.7%	56.9%
Age, in years	46.1 [44.9, 47.3]	49.0 [47.0, 50.9]	50.0 [48.0, 52.0]	37.6 [35.4, 39.8]
Education				
High school graduate or less	34.8%	20.6%	30.0%	58.6%
Some college	34.9%	40.6%	36.9%	24.8%
College graduate	17.9%	21.5%	19.7%	10.7%
Graduate school or more	12.5%	17.3%	13.5%	6.0%
Employment				
Full or part time	60.4%	63.3%	59.2%	60.7%
Retired	18.1%	22.5%	21.5%	7.7%
Unemployed	21.6%	14.2%	19.8%	31.6%
Race				
White	81.1%	85.0%	82.4%	74.7%
Black/African American	4.2%	4.1%	4.1%	3.9%
American Indian/Alaska Native	3.4%	2.2%	5.1%	3.7%
Asian/Hawaiian/Pacific Islander	7.8%	4.5%	6.2%	12.8%
Ethnicity				
Hispanic	9.3%	4.5%	12.3%	10.9%
Non-Hispanic	90.4%	95.1%	87.7%	88.8%
Spirits drinker status				
Non-spirits drinker	48.6%	33.6%	56.2%	52.6%
Spirits drinker/nonbuyer	10.6%	8.1%	9.4%	15.0%
Spirits drinker/buyer	40.8%	58.3%	34.4%	32.4%
Average weekly no. of drinks, past 12 months	4.3 [3.7, 4.9]	5.6 [4.7, 6.5]	2.4 [1.7, 3.1]	5.6 [3.9, 7.2]
Average weekly no of spirits drinks, past 12 months	1.4 [1.1, 1.6]	2.0 [1.6, 2.4]	0.7 [0.5, 0.9]	1.7 [0.8, 2.5]
Do you think taxes on liquor should be . . . ? ^a				
Increased	16.6%	7.9%	24.3%	16.0%
Decreased	25.6%	39.8%	13.9%	25.3%
Remain the same	49.3%	47.4%	53.5%	51.0%
Do you think taxes on beer should be . . . ?				
Increased	17.6%	9.0%	24.3%	18.6%
Decreased	18.4%	27.7%	9.9%	18.9%
Remain the same	55.9%	58.0%	58.7%	55.1%
Do you think the number of stores selling liquor should be . . . ?				
Increased	7.1%	11.4%	3.7%	6.6%
Decreased	29.8%	8.0%	50.9%	29.3%
Remain the same	57.9%	76.0%	43.4%	59.0%
Do you think youth alcohol abuse has . . . since liquor sales were privatized as of June 2012?				
Increased	26.0%	11.8%	40.4%	24.8%
Decreased	3.2%	3.1%	2.2%	4.2%
Remained the same	50.9%	74.1%	38.1%	27.2%
Did you vote for or against proposition 1183?				
For	32.6%	100%	0%	0%
Against	33.9%	0%	100%	0%
Did not vote	26.4%	0%	0%	100%
Would you still vote the same way?				
Yes	85.3%	80.2%	95.9%	N/A
No	11.4%	19.9%	4.1%	
Do you think proposition 1183 has been a success? ^b				
Yes	36.5%	N/A	N/A	36.8%
No	19.2%			19.3%

Notes: No. = number; N/A = not applicable. ^aRemaining answered "I don't know" or refused; ^basked of nonvoters only.

TABLE 2. Adjusted odds ratios with 95% confidence intervals from weighted regressions of demographics and drinking variables regressed on Initiative 1183 voting-related outcomes

Predictors	Outcomes	
	Voted on I-1183 (vs. did not) (Total sample, <i>n</i> = 1,031)	Voted Yes on I-1183 (vs. No) (Voters only, <i>n</i> = 818)
Male (vs. female)	0.97 [0.64, 1.46]	1.20 [0.84, 1.70]
Age (years)	1.05 [1.03, 1.06]***	0.99 [0.98, 1.01]
Education (vs. high school graduate or less)		
Some college	3.34 [2.06, 5.41]***	1.28 [0.78, 2.09]
College graduate	4.40 [2.56, 7.56]***	1.20 [0.70, 2.05]
Graduate school or more	4.57 [2.37, 8.81]***	1.41 [0.84, 2.37]
Employment (vs. full or part time)		
Retired	0.78 [0.36, 1.71]	1.59 [0.99, 2.55]
Unemployed	0.61 [0.37, 1.02]	0.85 [0.51, 1.42]
Race (vs. White)		
Black/African American	1.20 [0.48, 3.03]	1.50 [0.44, 5.15]
American Indian/Alaska Native	1.45 [0.34, 6.19]	0.68 [0.20, 2.33]
Asian/Hawaiian/Pacific Islander	0.45 [0.17, 1.20]	1.06 [0.45, 2.52]
Multiracial	0.81 [0.26, 2.52]	2.19 [0.68, 7.04]
Ethnicity (vs. non-Hispanic)		
Hispanic	2.38 [0.67, 8.42]	0.30 [0.11, 0.87]*
Spirits drinker status (vs. nondrinker)		
Spirits drinker/nonbuyer	1.26 [0.62, 2.26]	1.31 [0.68, 2.51]
Spirits drinker/buyer	2.02 [1.28, 3.21]**	1.97 [1.30, 3.00]***
Average weekly no. of drinks, past 12 months	0.96 [0.94, 0.99]*	1.04 [0.99, 1.08]
Average weekly no. of spirits drinks, past 12 months	1.02 [0.95, 1.09]	1.05 [0.97, 1.14]

Notes: No. = number. **Bold** indicates statistical significance.

p* < .05; *p* < .01; ****p* < .001.

than those who believed the number of liquor stores should be increased (Table 3, second data column).

Success of Initiative 1183

The final set of analyses examined bivariate relationships between demographics, drinking variables, and policy opinions and thinking that I-1183 has been a success. Among those who did not vote, 36.8% reported that I-1183 has been a success, 19.3% reported it has not been a success, and 43.9% reported that they didn't know (post-weighting).

Table 4 displays results from the bivariate tests, with the bolded numbers representing significant differences found between groups in post-hoc testing. A significantly smaller proportion of those who reported that they didn't know whether I-1183 has been a success were spirits drinkers/buyers compared with either those who reported Yes or those who reported No. Significantly more respondents who reported that I-1183 has been a success were spirits drinkers/nonbuyers compared with those who reported that I-1183 has not been a success (18.8% vs. 3.2%). Those who reported that I-1183 has not been a success also drank significantly more drinks per week than those who didn't know (12.0 vs. 2.9 drinks/week). Compared with those who reported that I-1183 has been a success, significantly more

of those who reported I-1183 has not been a success reported that the number of liquor stores should be decreased (12.2% vs. 52.5%). Finally, those who reported not knowing whether I-1183 has been a success were more likely to not know whether youth alcohol abuse has changed since privatization compared with those who reported that I-1183 has not been a success.

Discussion

Most notably, those who voted Yes on I-1183 had almost eight times the odds of wanting to change their votes compared with those who voted No. Therefore, people who were in favor of privatization may have changed their minds based on what has happened since the policy change went into effect. Importantly, the proportion of voters who would switch their votes from Yes to No might be large enough to alter the election results; I-1183 passed 58.7% to 41.3% (Ammons, 2011), and a 20% shift from Yes to No could have resulted in I-1183's defeat, even when combined with a 4% shift among the voters who originally voted No. Results from the models controlling for policy opinions suggest that spirits availability may be a bigger concern than pricing or youth alcohol abuse, because reporting that the number of liquor stores should be

TABLE 3. Adjusted odds ratios with 95% confidence intervals from weighted regressions of demographics, drinking variables, and policy opinions regressed on Initiative 1183 opinions among nonvoters

Predictors	Outcomes	
	Would change vote on I-1183 (vs. would not change vote) (Voters only, $n = 783$)	Would change vote on I-1183 (vs. would not change vote) (Among those who voted Yes, $n = 373$)
Male (vs. female)	0.55 [0.29, 1.06]	0.39 [0.18, 0.83]*
Age (years)	1.00 [0.98, 1.02]	1.00 [0.98, 1.03]
Education (vs. high school graduate or less)		
Some college	0.39 [0.16, 0.95]*	0.48 [0.17, 1.33]
College graduate	0.50 [0.18, 1.36]	0.46 [0.13, 1.59]
Graduate school or more	0.40 [0.16, 1.05]	0.61 [0.20, 1.92]
Employment (vs. Full or part-time)		
Retired	1.07 [0.48, 2.36]	1.26 [0.47, 3.38]
Unemployed	1.08 [0.46, 2.55]	1.08 [0.38, 3.06]
Race (vs. White)		
Black/African American	1.01 [0.09, 11.27]	— ^a
American Indian/Alaska Native	3.81 [0.66, 22.04]	2.48 [0.19, 31.97]
Asian/Hawaiian/Pacific Islander	1.93 [0.42, 8.92]	4.01 [0.79, 20.40]
Multiracial	0.99 [0.20, 4.86]	1.18 [0.20, 7.11]
Ethnicity (vs. non-Hispanic)		
Hispanic	0.40 [0.03, 4.76]	0.66 [0.02, 17.66]
Spirits drinker status (vs. nondrinker)		
Spirits drinker/nonbuyer	0.15 [0.04, 0.66]*	0.18 [0.04, 0.84]*
Spirits drinker/buyer	1.80 [0.81, 4.00]	1.55 [0.68, 3.51]
Average weekly no. of drinks, past 12 months	1.02 [0.97, 1.06]	1.03 [0.98, 1.09]
Average weekly no. of spirits drinks, past 12 months	0.98 [0.91, 1.06]	0.96 [0.87, 1.05]
Voted Yes on I-1183 (vs. No)	7.77 [2.49, 24.26]***	N/A
Do you think taxes on liquor should be . . . ? (vs. increased)		
Decreased	2.56 [0.24, 27.37]	2.71 [0.25, 29.40]
Remain the same	0.67 [0.06, 7.55]	0.36 [0.04, 3.55]
I don't know	0.54 [0.03, 8.88]	0.49 [0.01, 18.03]
Do you think taxes on beer should be . . . ? (vs. increased)		
Decreased	0.71 [0.06, 8.26]	1.04 [0.08, 13.18]
Remain the same	1.49 [0.13, 17.43]	1.82 [0.19, 17.78]
I don't know	1.72 [0.13, 22.74]	3.09 [0.13, 74.33]
Do you think the number of stores selling liquor should be . . . ? (vs. increased)		
Decreased	1.73 [0.44, 6.83]	5.91 [1.27, 27.44]*
Remain the same	1.85 [0.64, 5.32]	2.15 [0.67, 6.92]
I don't know	0.28 [0.02, 3.40]	0.29 [0.02, 5.00]
Do you think youth alcohol abuse has . . . since liquor sales were privatized in June 2012? (vs. increased)		
Decreased	0.82 [0.13, 5.35]	1.19 [0.15, 9.08]
Remained the same	0.75 [0.30, 1.88]	0.44 [0.13, 1.44]
I don't know	2.04 [0.70, 5.91]	1.43 [0.34, 5.96]

Notes: No. = number; N/A = not applicable; **bold** indicates statistical significance. ^aNone of the Black respondents who voted Yes would change his or her vote.

* $p < .05$; *** $p < .001$.

decreased was the only significant policy opinion related to wanting to change one's vote among those who voted Yes.

The significant correlates of voting (vs. not voting)—older age and higher education—have been shown to predict voting in previous studies (Miller & Shanks, 1996). Being a spirits drinker/buyer also predicted voting on I-1183 even when accounting for age and education, which

suggests that spirits drinkers/buyers may have been more invested in privatization of spirits sales than respondents who do not buy spirits, regardless of their age or education. In addition, spirits drinkers/buyers had double the odds of voting Yes than spirits nondrinkers. Interestingly, spirits drinker status did not predict voting on I-502 (cannabis legalization), which further supports the idea that spirits drinkers/buyers were particularly interested in I-1183.

TABLE 4. Demographics and policy opinions for those who answered “Yes” vs. “No” vs. “I don’t know” to the question, “Do you think that proposition 1183, privatizing liquor sales, has been a success?”^a (percentages or means [95% confidence intervals])

Variable	Yes (<i>n</i> = 80)	No (<i>n</i> = 52)	I don’t know (<i>n</i> = 109)
Weighted %	36.8%	19.3%	43.9%
Male	63.6%	65.6%	46.7%
Age, in years	34.4 [31.3, 37.5]	39.1 [33.9, 44.3]	39.8 [36.2, 43.3]
Education			
High school graduate or less	55.8%	58.0%	61.2%
Some college	28.9%	23.8%	22.1%
College graduate	8.4%	13.7%	11.5%
Graduate school or more	6.9%	4.5%	5.2%
Employment			
Full or part time	63.6%	61.9%	57.1%
Retired	3.9%	13.3%	8.9%
Unemployed	32.6%	24.9%	34.4%
Race			
White	76.7%	79.0%	72.3%
Black	4.5%	0%	5.3%
American Indian/Alaska Native	1.2%	2.8%	6.1%
Asian/Hawaiian/Pacific Islander	9.8%	18.2%	11.1%
Multiracial	7.7%	0%	4.9%
Ethnicity			
Hispanic	16.0%	8.0%	8.1%
Non-Hispanic	83.3%	92.0%	91.9%
Spirits drinker status*			
Non-spirits drinker	38.6%	52.6%	63.6%
Spirits drinker/nonbuyer	18.8%	3.2%	17.3%
Spirits drinker/buyer	43.1%	44.2%	19.1%
Average weekly no. of drinks, past 12 months*	5.4 [3.1, 7.8]	12.0 [5.4, 18.5]	2.9 [1.5, 4.4]
Average weekly no. of spirits drinks, past 12 months	1.6 [0.5, 2.8]	4.1 [0.2, 8.0]	0.7 [0.3, 1.1]
Do you think taxes on liquor should be . . . ?			
Increased	15.3%	20.7%	14.7%
Decreased	24.8%	29.5%	23.2%
Remain the same	57.7%	44.7%	48.4%
I don’t know	2.2%	4.3%	11.3%
Do you think taxes on beer should be . . . ?			
Increased	13.5%	27.1%	19.4%
Decreased	17.5%	17.1%	20.2%
Remain the same	65.9%	50.2%	48.5%
I don’t know	3.1%	4.9%	9.4%
Do you think the number of stores selling liquor should be . . . ?*			
Increased	7.8%	9.5%	4.5%
Decreased	12.2%	52.5%	32.9%
Remain the same	79.7%	35.1%	52.6%
I don’t know	0.4%	2.1%	7.4%

Notes: No. = number. **Bold** indicates statistical significance. ^aAsked of nonvoters only (*n* = 241).

**p* < .05.

Regarding whether I-1183 has been a success, a larger proportion of those who reported either Yes or No were spirits drinkers/buyers compared with those who reported not knowing, which again suggests that spirits drinkers/buyers are particularly interested in privatization (i.e., because non-spirits drinkers/buyers were less likely to have any opinion). A larger proportion of those who reported that I-1183 has been a success were spirits drinkers/nonbuyers compared with those who reported that I-1183 has not been a success; this may be because spirits drinkers/nonbuyers have

been less affected by I-1183 than spirits drinkers/buyers. Furthermore, those who reported that I-1183 has not been a success were more likely to report that the number of liquor stores should be decreased, which again suggests that the increased availability of spirits may affect opinions regarding privatization. Surprisingly, opinions on taxes did not appear to affect wanting to change one’s vote or thinking that I-1183 has been a success, even though spirits prices have increased by 5%–15% since privatization went into effect (Kerr et al., 2015).

Based on previous privatizations, voters might have expected increases in alcohol availability coupled with decreases in price. However, the impact of privatization at the retail level in the Canadian provinces Alberta and British Columbia may suggest otherwise. An analysis of privatization in Alberta showed that increased costs and excess capacity in private stores resulted in higher prices for the consumer. Yet because more stores opened and availability widened, consumption increased despite these higher prices. The province of Alberta also collected an estimated \$500 million less in tax revenue between 1994 and 2003 than they would have under government control (Flanagan, 2003; Trolldal, 2005). A study of mortality trends in Alberta linked this privatization to increased suicide rates (Zalcman & Mann, 2007). In the province of British Columbia, partial privatization caused the number of retail outlets to grow, although prices remained relatively stable because the government kept control of the wholesale tier and most of its stores. Still, consumption did increase in geographic areas with proportionately more private stores (Stockwell et al., 2009). Further analyses of this privatization showed that the density of private stores increased alcohol-related deaths by 3.25% for each 20% increase in density for an area (Stockwell et al., 2011). Both of these cases suggest that increased availability may have a larger effect than increased prices, and that spirits and alcohol sales will most likely rise in Washington.

Prior studies of privatization in individual U.S. states have shown significant growth in sales of the particular beverage that has been privatized, usually wine, as well as smaller increases in alcohol sales overall (Wagenaar & Holder, 1991, 1995). One of the few case studies of spirits privatization in the United States (Iowa) occurred at the retail level with the state retaining control over the wholesale tier. This change was associated with a 10% increase in spirits consumption and a 5% increase in overall alcohol consumption (Holder & Wagenaar, 1990; Mulford et al., 1992). Although we did not find that concerns regarding youth alcohol abuse were related to I-1183 policy opinions, results of a recent U.S. study showed that states with retail monopolies had significantly fewer youth who reported drinking and heavy episodic ("binge") drinking during a past-30-day period, as well as fewer alcohol-impaired drinking deaths (9.3% lower) than those in nonmonopoly states (Miller et al., 2006).

Study strengths and limitations

Our data come from a large, general population sample that was surveyed within 2 years of privatization going into effect. Because there are few differences in the policy opinions of voters and nonvoters, and because these differences tend to be modest (Leighley & Nagler, 2007), the current results likely reflect the general public's opinions regarding I-1183 in Washington State. Yet since only 2 years had passed between privatization and data collection, there may

be unforeseen consequences that sway public opinion in the future. Furthermore, the timing of this project's funding precluded a new survey before either the I-1183 election or the actual privatization occurred. Other potential limitations include that population sampling may miss hard-to-reach subgroups, and that self-report regarding voting outcomes, alcohol use, problems, and opinions may be biased or inaccurate because of social acceptability issues and other factors.

Given that there are no other studies of I-1183 voter characteristics, it is impossible to tell how representative our sample is. Furthermore, in our sample, 49.1% of voters voted for I-1183 and 50.9% voted against it. In the actual election, 58.7% voted for it and 41.3% voted against it. Because we have fewer Yes voters than expected, it could be that (a) people who actually voted Yes reported that they voted No, (b) people who voted No reported that they did not vote, and/or (c) people who did not really vote misreported that they had voted against I-1183. These types of misreporting could be attributable to social acceptability issues but would actually make our current results stronger, as this would suggest that people who voted for I-1183 did not want to report this to us because they had changed their minds about privatization. It could also be the case that Yes voters were missing from our sample to some degree because of bias in recruitment. However, if we were to make the strongest and most conservative assumption that the entire difference between our sample and the actual voters was attributable to sampling bias and that all of the Yes voters missing from our sample would not change their votes, our calculations indicate equal support for (50.6%) and against (49.4%) privatization among voters. We do not believe that our sample is biased to this extent, suggesting that I-1183 would likely not have passed if voters had an understanding of its actual impacts.

Conclusion and implications

Our results indicate that the outcome of the election in which I-1183 was passed would likely have been different if voters could know their future opinions of the actual situation resulting from privatization. Among those who voted Yes on privatization, thinking that the number of stores selling spirits should be reduced was associated with saying they would now change their vote to No, suggesting that the number of stores that would be selling spirits was underestimated by this group. Surprisingly, thinking that spirits taxes should be reduced (or increased) was not associated with voting regrets. Prices were found to rise after privatization (Kerr et al., 2015), and it seems likely that at least some voters would have expected reduced prices. In general, results indicate that improving the accuracy of predictions regarding the situation expected to occur after privatization could reduce support for spirits-sale privatization.

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