The Economic Impact of Alcohol Taxes

Brady Horn

Professor, Department of Economic, and the Center for Alcoholism, Substance Use and Addiction, UNM

✓ This presentation does not necessarily reflect the viewpoint of the University of New Mexico

UNM Economics Research and Public Service Project

- Mission: Produce research projects that will inform policy makers about economic issues facing New Mexico, with the goal of improving the lives of New Mexicans
 - Independent analysis on contemporary and important New Mexico issues
 - Long-term benefit: create data and research infrastructure and to be able to study future research questions
 - Plug: New Mexico Economics Research Day (August 15, 2025)
- We have written 2 reports on alcohol policy in New Mexico (coauthored by David Dixon and Ana

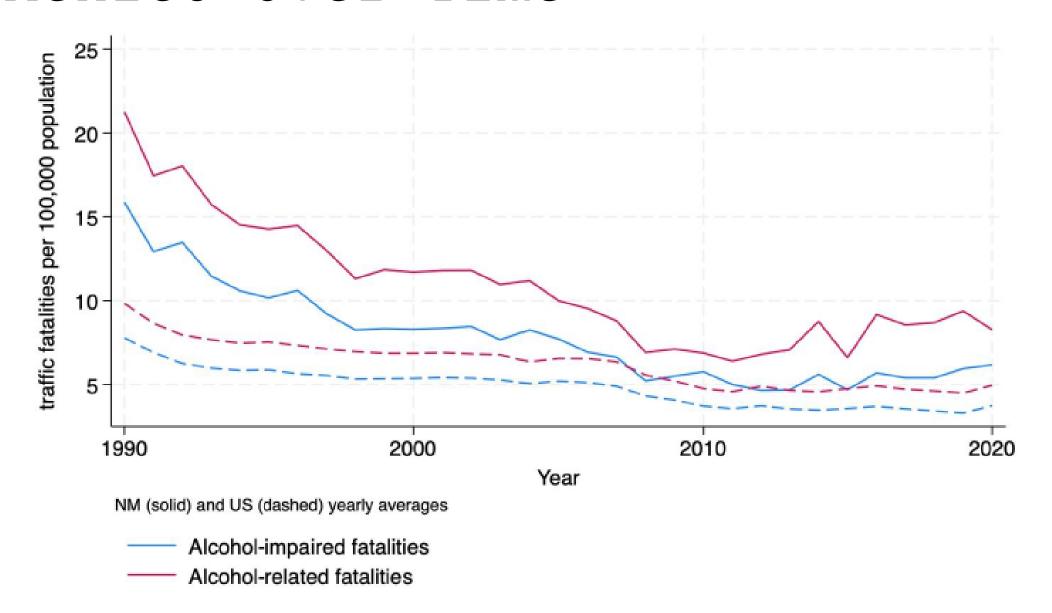
Motivation

- Alcohol is a complex good with both economic benefits and considerable economic costs
 - People enjoy alcohol for its culinary and intoxicating effects
 - Moderate alcohol consumption may have *some* positive health impacts
 - There may be some economic development associated with alcohol consumption (e.g., NM brewing industry)

Motivation

- Alcohol is a complex good with both economic benefits and considerable economic costs
 - People enjoy alcohol for its culinary and intoxicating effects
 - Moderate alcohol consumption may have *some* positive health impacts
 - There may be some economic development associated with alcohol consumption (e.g., NM brewing industry)
- Many negative health and societal outcomes associated with alcohol
 - Alcohol has a close association with crime, domestic violence, and reduced work performance (Abbey et al., 1998, 2004; Corman & Mocan, 2015; Kuhns et al., 2014; Zhang et al., 1997).
 - ✓ Over 13 thousand people in the US die every year from alcohol related fatalities (which is one person every 39 minutes)
 - ✓ Every year over seven thousand homicide reports indicated alcohol as

Alcohol Fatality Rates New Mexico Over Time



- Externality: a benefit or cost that affects someone who is not directly involved in the production or consumption process
 - Market failure an economic situation where there is an inefficient distribution of goods and services (or, when markets do not create the greatest amount of good possible)

- Externality: a benefit or cost that affects someone who is not directly involved in the production or consumption process
 - Market failure an economic situation where there is an inefficient distribution of goods and services (or, when markets do not create the greatest amount of good possible)
- Alcohol markets are examples of market failure, where some of the costs are not accounted for in prices
 - negative externalities: crime, domestic violence, drinking and driving, etc.

- Externality: a benefit or cost that affects someone who is not directly involved in the production or consumption process
 - <u>Market failure</u> an economic situation where there is an inefficient distribution of goods and services (or, when markets do not create the greatest amount of good possible)
- Alcohol markets are examples of market failure, where some of the costs are not accounted for in prices
 - negative externalities: crime, domestic violence, drinking and driving, etc.
- Mechanisms for how alcohol taxes indirectly impact negative outcomes:

UNM Research on Alcohol Taxes

Table 2. The effect of beer taxes on alcohol-impaired (BAC 0.08+) traffic fatalities

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Beer tax	-0.292***	-0.243***	-0.249***	-0.193***	-0.247***	-0.182***
	(0.107)	(0.0624)	(0.0620)	(0.0487)	(0.0638)	(0.0478)
State FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
State controls	NO	YES	YES	YES	YES	YES
Alcohol controls	NO	NO	YES	YES	YES	YES
Non-AR traffic fatalities	NO	NO	NO	NO	YES	YES
State time trends	NO	NO	NO	YES	NO	YES
N	1530	1530	1530	1530	1530	1530

UNM Research on Alcohol Taxes

Table 2. The effect of beer taxes on alcohol-impaired (BAC 0.08+) traffic fatalities

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
.	0.000000	0.010000	0.010000	0.400000	0.047000	0.400000
Beer tax	-0.292***	-0.243***	-0.249***	-0.193***	-0.247***	-0.182***
	(0.107)	(0.0624)	(0.0620)	(0.0487)	(0.0638)	(0.0478)
State FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
State controls	NO	YES	YES	YES	YES	YES
Alcohol controls	NO	NO	YES	YES	YES	YES
Non-AR traffic fatalities	NO	NO	NO	NO	YES	YES
State time trends	NO	NO	NO	YES	NO	YES
N	1530	1530	1530	1530	1530	1530

[✓] Consistent evidence is found that alcohol taxes reduce driving fatalities

UNM Research on Alcohol Taxes

Table 2. The effect of beer taxes on alcohol-impaired (BAC 0.08+) traffic fatalities

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
ъ.	0.000***	0.040***	0.040***	0.103***	0.047***	0.100***
Beer tax	-0.292***	-0.243***	-0.249***	-0.193***	-0.247***	-0.182***
	(0.107)	(0.0624)	(0.0620)	(0.0487)	(0.0638)	(0.0478)
State FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
State controls	NO	YES	YES	YES	YES	YES
Alcohol controls	NO	NO	YES	YES	YES	YES
Non-AR traffic fatalities	NO	NO	NO	NO	YES	YES
State time trends	NO	NO	NO	YES	NO	YES
N	1530	1530	1530	1530	1530	1530

 \sqrt{m}

[✓] Consistent evidence is found that alcohol taxes reduce driving fatalities

[✓] On average an excise tax increase of 10 cents reduced fatalities by approximately 2%

				Effective tax
	Drinks	Effective tax	Effective tax	per ounce of
Category	per unit	per unit	per drink	ethanol
Beer	10.67	\$0.39	\$0.0366	\$0.0609
Cider	10.67	\$0.41	\$0.0384	\$0.0641
Wine	6.76	\$0.42	\$0.0621	\$0.1035
Fortified wine	11.27	\$1.50	\$0.1331	\$0.2218
Distilled spirits	22.54	\$1.60	\$0.0710	\$0.1183

				Effective tax
	Drinks 1	Effective tax	Effective tax	per ounce of
Category	per unit	per unit	per drink	ethanol
Beer	10.67	\$0.39	\$0.0366	\$0.0609
Cider	10.67	\$0.41	\$0.0384	\$0.0641
Wine	6.76	\$0.42	\$0.0621	\$0.1035
Fortified wine	11.27	\$1.50	\$0.1331	\$0.2218
Distilled spirits	22.54	\$1.60	\$0.0710	\$0.1183

				Effective tax
	Drinks	Effective tax	Effective tax	per ounce of
Category	per unit	per unit	per drink	ethanol
Beer	10.67	\$0.39	\$0.0366	\$0.0609
Cider	10.67	\$0.41	\$0.0384	\$0.0641
Wine	6.76	\$0.42	\$0.0621	\$0.1035
Fortified wine	11.27	\$1.50	\$0.1331	\$0.2218
Distilled spirits	22.54	\$1.60	\$0.0710	\$0.1183

[✓] Alcohol taxes are relatively low in New Mexico

[✓] Considerable heterogeneity by category

				Effective tax
	Drinks	Effective tax	Effective tax	per ounce of
Category	per unit	per unit	per drink	ethanol
Beer	10.67	\$0.39	\$0.0366	\$0.0609
Cider	10.67	\$0.41	\$0.0384	\$0.0641
Wine	6.76	\$0.42	\$0.0621	\$0.1035
Fortified wine	11.27	\$1.50	\$0.1331	\$0.2218
Distilled spirits	22.54	\$1.60	\$0.0710	\$0.1183

- ✓ Alcohol taxes are relatively low in New Mexico
- ✓ Considerable heterogeneity by category
- ✓ Note: there are different tax rates for small local breweries and wineries

Tax Revenue

• What tax revenue will be generated from increased alcohol taxes?

Tax Revenue

- What tax revenue will be generated from increased alcohol taxes?
- Analysis is a bit complicated and depends on numerous factors
 - Type and magnitude of the tax
 - Current levels of alcohol consumption and alcohol prices
 - Alcohol elasticities
 - Alcohol tax pass-through rates
- We base our analysis on a 25-cent per-drink tax
 - Other tax rates and designs could be considered
 - One drink is based on .6 oz of ethanol

Table 9. Tax revenue from a 25-cent per-drink tax.

		Sales after				
	Reduction	tax is	Number of			
	in sales	increased	drinks after			
	(thousands	(millions of	tax is	Per-drink	2018 tax	
	of taxation	taxation	increased	tax revenue	revenue	Tax revenue
	units)	units)	(millions)	(\$millions)	(\$millions)	increase
Beer	968	42.209	450.37	\$112.593	\$16.927	\$95.666
Wine	133.9	15.761	106.544	\$26.636	\$6.676	\$19.960
Spirits	147.2	13.91	156.766	\$39.192	\$22.491	\$16.701
Total				\$178.421	\$46.094	\$132.327

Table 9. Tax revenue from a 25-cent per-drink tax.

		Sales after				
	Reduction	tax is	Number of			
	in sales	increased	drinks after			
	(thousands	(millions of	tax is	Per-drink	2018 tax	
	of taxation	taxation	increased	tax revenue	revenue	Tax revenue
	units)	units)	(millions)	(\$millions)	(\$millions)	increase
Beer	968	42.209	450.37	\$112.593	\$16.927	\$95.666
Wine	133.9	15.761	106.544	\$26.636	\$6.676	\$19.960
Spirits	147.2	13.91	156.766	\$39.192	\$22.491	\$16.701
Total				\$178.421	\$46.094	\$132.327

Table 9. Tax revenue from a 25-cent per-drink tax.

		Sales after				
	Reduction	tax is	Number of			
	in sales	increased	drinks after			
	(thousands	(millions of	tax is	Per-drink	2018 tax	
	of taxation	taxation	increased	tax revenue	revenue	Tax revenue
	units)	units)	(millions)	(\$millions)	(\$millions)	increase
Beer	968	42.209	450.37	\$112.593	\$16.927	\$95.666
Wine	133.9	15.761	106.544	\$26.636	\$6.676	\$19.960
Spirits	147.2	13.91	156.766	\$39.192	\$22.491	\$16.701
Total				\$178.421	\$46.094	\$132.327

Table 9. Tax revenue from a 25-cent per-drink tax.

		Sales after				
	Reduction	tax is	Number of			
	in sales	increased	drinks after			
	(thousands	(millions of	tax is	Per-drink	2018 tax	
	of taxation	taxation	increased	tax revenue	revenue	Tax revenue
	units)	units)	(millions)	(\$millions)	(\$millions)	increase
Beer	968	42.209	450.37	\$112.593	\$16.927	\$95.666
Wine	133.9	15.761	106.544	\$26.636	\$6.676	\$19.960
Spirits	147.2	13.91	156.766	\$39.192	\$22.491	\$16.701
Total				\$178.421	\$46.094	\$132.327

Table 9. Tax revenue from a 25-cent per-drink tax.

		Sales after				
	Reduction	tax is	Number of			
	in sales	increased	drinks after			
	(thousands	(millions of	tax is	Per-drink	2018 tax	
	of taxation	taxation	increased	tax revenue	revenue	Tax revenue
	units)	units)	(millions)	(\$millions)	(\$millions)	increase
Beer	968	42.209	450.37	\$112.593	\$16.927	\$95.666
Wine	133.9	15.761	106.544	\$26.636	\$6.676	\$19.960
Spirits	147.2	13.91	156.766	\$39.192	\$22.491	\$16.701
Total				\$178.421	\$46.094	\$132.327

[✓] Overall, a 25-cent per-drink tax is estimated to increase tax revenues by approximately \$130 million

Summary

- Alcohol is a complex good, but it is associated with many negative externalities.
- Alcohol taxes will reduce alcohol consumption, which will lead to reduced negative societal outcomes (e.g., crime, alcohol related fatalities etc.)
- Estimated tax revenue from a 25-cent per-drink alcohol tax are estimated to be approximately \$130 million.