



Vape and E-Cigarette Research Overview

Vape/E-Cigarette Regulatory Working Group

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Overview

- Effects of e-cigarette usage on youth health outcomes
- Effects of e-cigarette taxes on youth vaping and smoking
- Estimated revenue collections from an average e-cigarette tax

The Effects of E-Cigarettes on Youth Health and Development

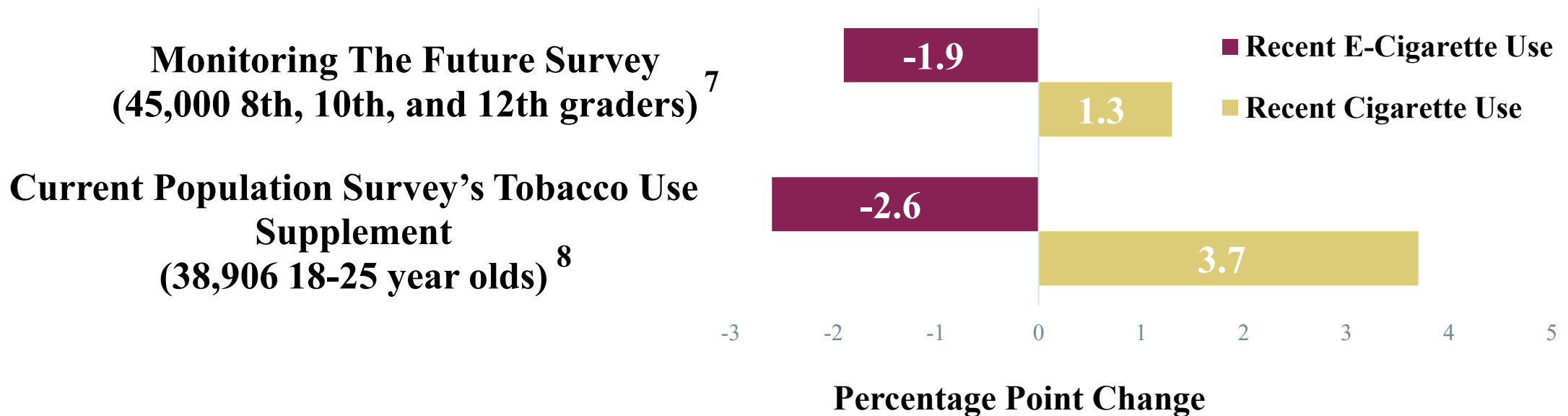
- Studies from the Journal of Adolescence¹, the American Journal of Preventative Medicine², Surgeon General Report³, and Annual Review of Public Health⁴ show that:
 - E-cigarettes have been linked to moderate levels of oxidative stress which can impair both brain and heart function by increasing inflammation^{1,4}
 - Adolescent brains are more susceptible to oxidative stress due to their continued development^{1,2,3}
 - Nicotine is more addictive to youth due to a stronger rewarding effect in adolescent brains^{2,3}
 - E-cigarettes have similar components to conventional cigarettes, such as ultrafine particles and other toxins, which are linked to cardiovascular and lung disease indicating the potential for similar long-term disease risks⁴

Components of E-Cigarettes

- The Journal of Tobacco Induced Diseases⁵ found that:
 - Of all the components identified in 54 samples of e-cigarette liquids nicotine was the only one significantly above a safety factor limit for exposure.
 - Exposure of Ethylene glycol, found in 91% of the 54 samples, was below the safety factor limit in half of those, and is not included on the FDA's list of compounds "generally recognized as safe"
- The Oxford Academic Journal of Nicotine & Tobacco Research⁶ assessed:
 - 159 flavored e-cigarette liquids focusing on flavoring chemicals that are responsible for popcorn lung disease and are regulated by the National Institute on Occupational Safety Hazards (NIOSH)
 - The most prevalent chemical observed was diacetyl, found in 69% of samples and 47.3% of those had exposure levels above the NIOSH safety limits

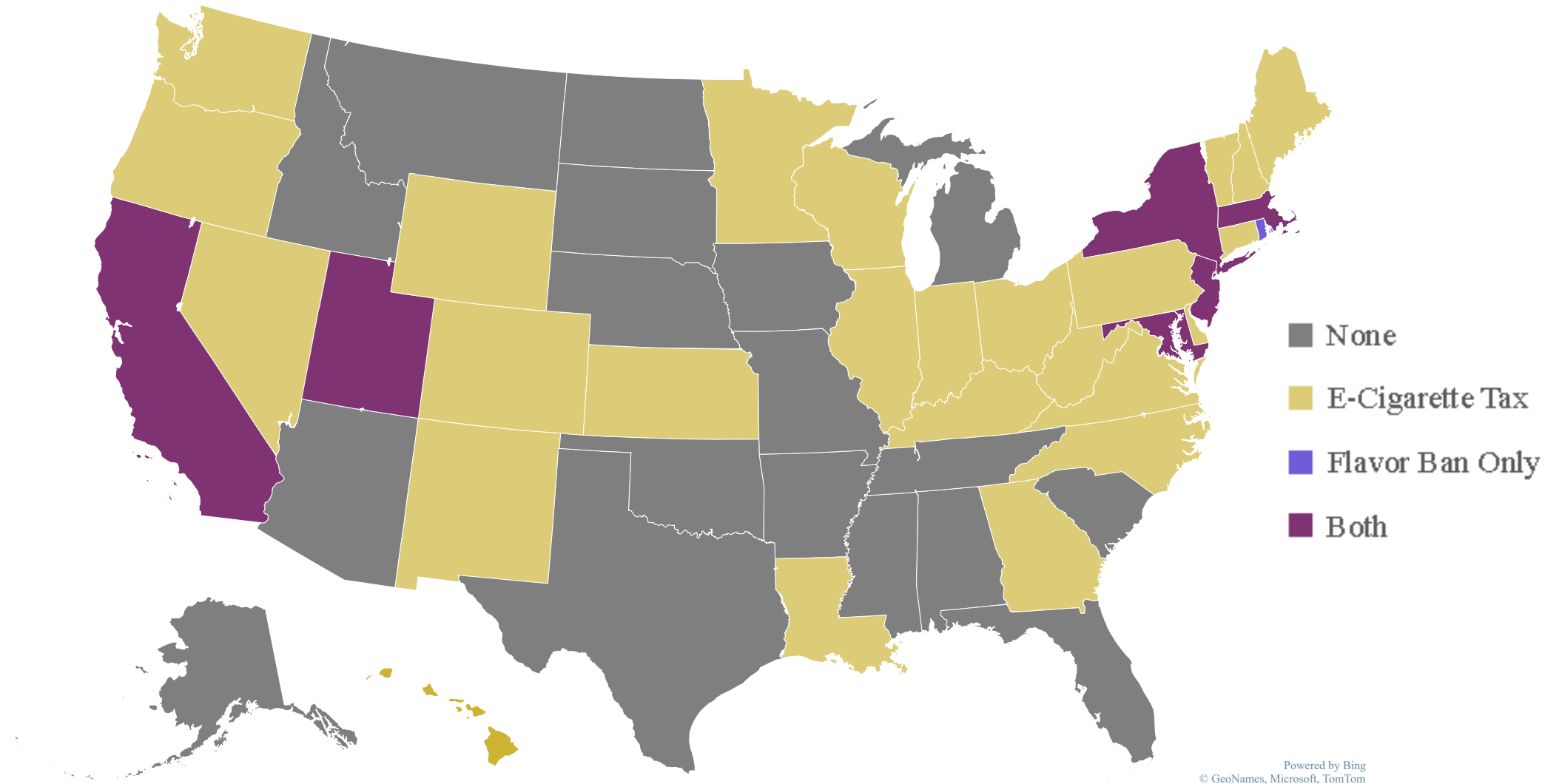
Impact of E-Cigarette Tax on Youth Behavior

Projected Effects of a \$1 E-Cigarette Tax Increase on Youth Vaping and Smoking



- The national Youth Risk Behavior Surveillance System survey (580,000 high school students) showed that e-cigarette taxes also shifted where youth obtained vapes from retailers to “social” and internet sources.⁷

Current State E-Cigarette Tax and Flavor Ban Policies



Vaping Taxes by State Summary

	Number of States	Min. Tax Rate	Average	Max. Tax Rate
No Tax	18			
Tax Rate on Price	14	15%	53%	95%
Tax per ml	8	\$0.05	\$0.07	\$0.15
Multiple Tax Rates	11	Various tax rates on refillable (open) vs. disposable (closed) vaping products quantity, retail, or wholesale price		

Source: State Vaping Tax Rates and Design, June 2024
<https://taxfoundation.org/data/all/state/vaping-taxes-2024/>

Estimated Vaping Tax Revenue in Idaho

	Tax on Price Estimate	Min. Tax Rate	Average	Max. Tax Rate
1	Idaho Estimated Total Wholesale Value	\$21,800,000		
2	Tax Rate on Price	15%	53%	95%
3	Estimated Collections based on Ad Valorem Tax Range (<i>row 1 x row 2</i>)	\$3,270,000	\$11,554,000	\$20,710,000
	Tax on ml Estimate	Min. Tax Rate	Average	Max. Tax Rate
4	Idaho Estimated Total Sales	31,500,000 ml		
5	Tax per ml	\$0.05	\$0.07	\$0.15
6	Estimated Collections based on per ml Tax Range (<i>row 4 x row 5</i>)	\$1,090,000	\$1,526,000	\$3,270,000

Questions?

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Sources

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Estimated Idaho Revenue Collection Calculation

		Utah	North Carolina
1	E-Cigarette/Vapor Products FY 2023 Revenue Collections	\$14,689,338	\$6,676,754
2	Tax Rate	56%	\$0.05 per ml
3	Total Wholesale (<i>row 1 divided by row 2</i>)	\$26,230,961	133,535,080 ml
4	State FY 2023 Population	3,417,734	10,835,491
5	State Tax Per Capita (<i>row 3 divided by row 4</i>)	\$7.67	\$12.32
6	State Daily Adult Vape Use	3.6%	4.00%
7	Idaho Daily Adult Vape Use	5.0%	5.0%
8	Idaho Forecasted FY 2026 Population	2,047,359	2,047,359
9	Idaho Estimated Total Wholesale (<i>row 5 divided by row 6 then multiply by row 7 and row 8</i>)	\$21,824,155	31,539,208 ml

Sources:

Utah Revenue

<https://tax.utah.gov/econstats/revenue>

North Carolina Revenue

<https://www.ncdor.gov/documents/reports/statistical-abstract-north-carolina-taxes-2023/open>

Population Data

<https://www.census.gov/data/tables/time-series/demo/popest/2020s-state-total.html>

Vape Use Data

[CDC BRFSS Prevalence and Trends Data](https://www.cdc.gov/brfss/prevalence-and-trends/)

Idaho Population Forecast

https://dfm.idaho.gov/wp-content/uploads/publications/eab/ief/ief_oct2024.pdf