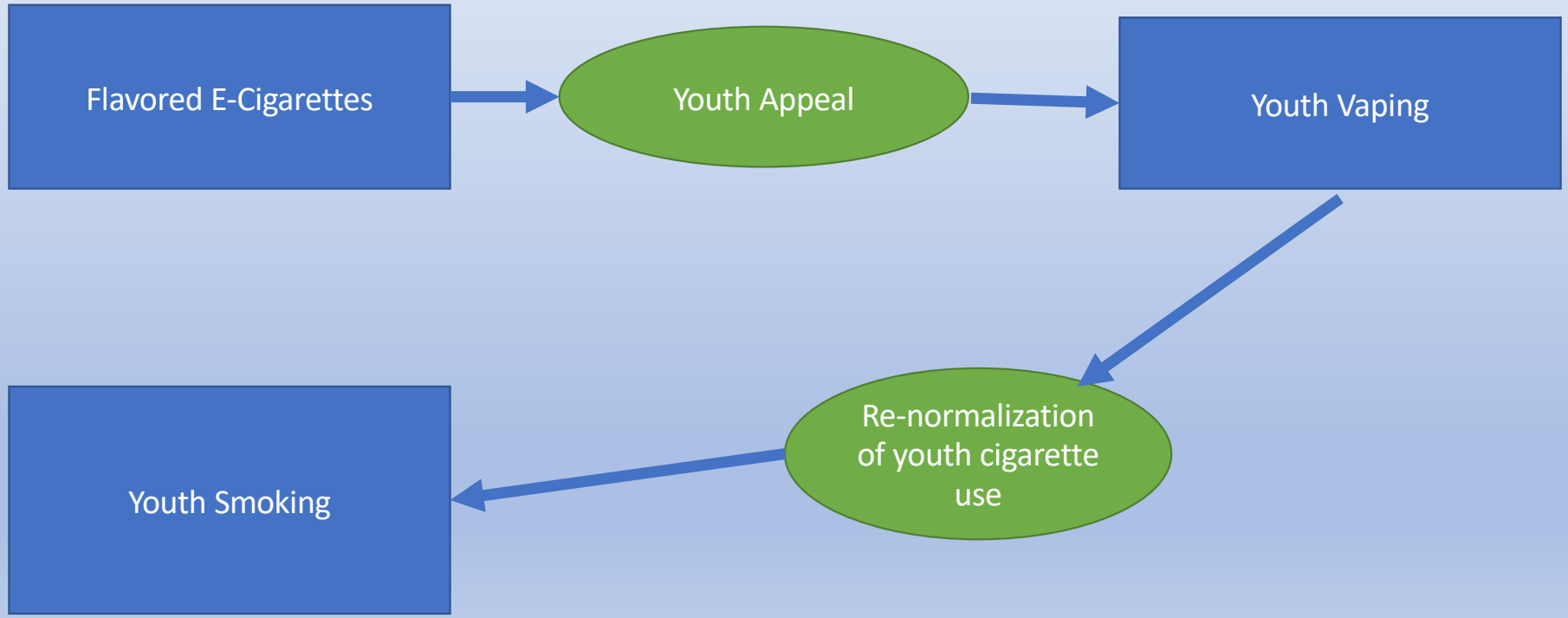
Current Government Policy towards E-Cigarettes

- FDA: Bans flavored electronic cigarettes, except menthol, for all closed systems (cartridge-based)
- States: 5 states ban the sale of flavored e-cigarettes
- Localities: 215 municipalities ban the sale of flavored e-cigarettes

Source: Americans for Nonsmokers' Rights; Campaign for Tobacco-Free Kids; Truth Initiative; FDA

None of the studies described by Dr. Hartmann-Boyce comparing e-cigarettes and NRT in clinical trials occurred in the U.S.

Conceptual Rationale for Flavored E-Cigarette Bans



Health

Using certain e-cigarette devices can lead to smoking more cigarettes

A USC study finds that teens who vape — especially those who use modifiable e-cigarette devices — end up smoking far more cigarettes than those who don't.

BY **Leigh Hopper** • APRIL 10, 2020

Related stories

More teen vaping could reverse progress in tobacco reduction

Teens who vape higher doses of nicotine are more likely to become regular smokers

New e-cig study shows vaping is no deterrent to teen smoking

USC study implicates flavored e-cigs in teen vaping epidemic

Are E-Cigs a Gateway to Smoking?

— Most young people who use them also use other forms of tobacco.

by Joyce Frieden, News Editor, MedPage Today May 8, 2015

OXFORD JOURNALS Nicotine & Tobacco Research

Nicotine Tob Res. 2019 May; 21(5): 695–698.
Published online 2018 Apr 6. doi: 10.1093/ntr/nty067

PMCID: PMC6468127
PMID: 29660054

The Gateway Effect of E-cigarettes: Reflections on Main Criticisms

Simon Chapman, PhD,[1] David Bareham, MSc,[2] and Wasim Maziak, PhD[3]

varieties; and 83.8% of stores that sell chew or snus sell flavored varieties. 70% of tobacco retailers within 1,000 feet of San Francisco schools sell flavored tobacco products other than menthol cigarettes, and nearly all sell menthol cigarettes.

(c) Each day, about 2,500 children in the United States try their first cigarette; and another 400 children under 18 years of age become new regular, daily smokers. 81% of youth who have ever used a tobacco product report that the first tobacco product they used was flavored. Flavored tobacco products promote youth initiation of tobacco use and help young occasional smokers to become daily smokers by reducing or masking the natural harshness and taste of tobacco smoke and thereby increasing the appeal of tobacco products. As tobacco companies well know, menthol, in particular, cools and numbs the throat to reduce throat irritation and make the smoke feel smoother, making menthol cigarettes an appealing option for youth who are initiating tobacco use. Tobacco companies have used flavorings such as mint and wintergreen in smokeless tobacco products as part of a "graduation strategy" to encourage new users to start with tobacco products with lower levels of nicotine and progress to products with higher levels of nicotine. It is therefore unsurprising that young people are much more likely to use menthol-, candy- and fruit-flavored tobacco products, including not just cigarettes but also cigars, cigarillos, and hookah tobacco, than adults. Data from the National Youth Tobacco Survey indicate that more than two-fifths of U.S. middle school and high school smokers report using flavored little cigars or flavored cigarettes. Further, the Centers for Disease Control and

Effect of Flavored E-Cigarette Bans: What Does the Evidence Show?

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Conflict of Interest Disclosure

I have received no funding or other compensation from any tobacco, electronic cigarette, or pharmaceutical company

and have no financial interests in any of these companies.

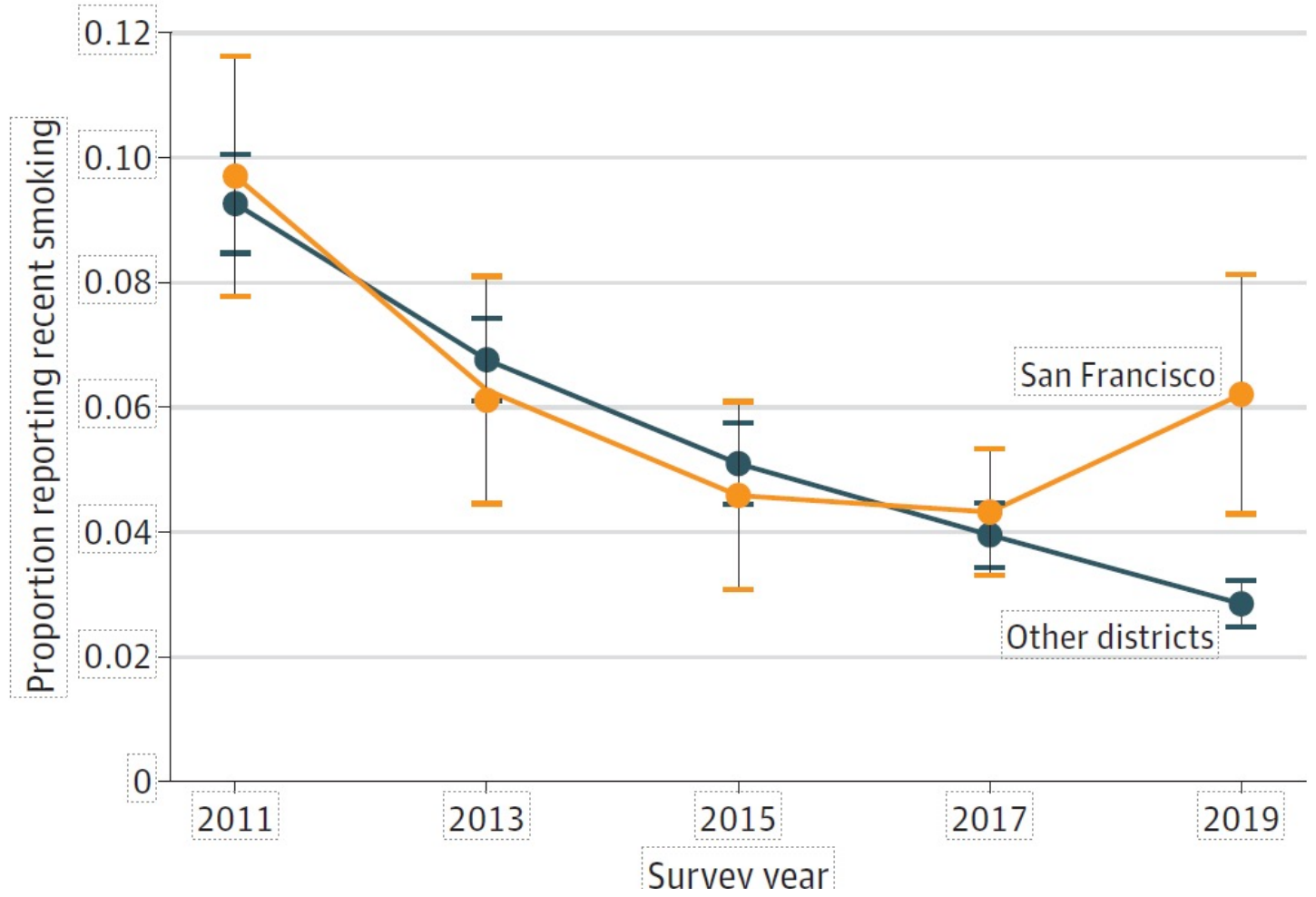
1. Effect of San Francisco's Ban on the Sale of Flavored Tobacco Products

A Difference-in-Differences Analysis of Youth Smoking and a Ban on Sales of Flavored Tobacco Products in San Francisco, California

Friedman AS. *JAMA Pediatrics 2021; 175(8):863-865.*

2011-2019 Youth Risk Behavior Survey
San Francisco, New York, Los Angeles, Philadelphia, San Diego, Broward County, Orange County, Palm Beach County

Figure 1. Past-30-Day Smoking Trends Among High School Students Younger Than 18 Years



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“Difference-in-differences analyses found that San Francisco’s flavor ban was associated with more than doubled odds of recent smoking among underage high school students relative to concurrent changes in other districts (adjusted odds ratio, 2.24 [95% CI, 1.42-3.53]; P = .001).”

“San Francisco’s ban on flavored tobacco product sales was associated with increased smoking among minor high school students relative to other school districts. While the policy applied to all tobacco products, its outcome was likely greater for youths who vaped than those who smoked due to higher rates of flavored tobacco use among those who vaped. This raises concerns that reducing access to flavored electronic nicotine delivery systems may motivate youths who would otherwise vape to substitute smoking. Indeed, analyses of how minimum legal sales ages for electronic nicotine delivery systems are associated with youth smoking also suggest such substitution.”

The Effects of E-Cigarette Minimum Legal Sale Age Laws on Youth Substance Use

Published on Jan 15, 2019 in Health Economics 2.25 · DOI :10.1002/HEC.3854 Copy DOI

Dhaval Dave 29 (Bentley University), Bo Feng 3 , Michael F. Pesko 15 (GSU: Georgia State University)

Abstract

We use difference-in-differences models and individual-level data from the national and state Youth Risk Behavior Surveillance System from 2005 to 2015 to examine the effects of e-cigarette minimum legal sale age (MLSA) laws on youth cigarette smoking, alcohol consumption, and marijuana use. Our results suggest that these laws increased youth smoking participation by about one percentage point and approximately half of the increased smoking participation could be attributed to smoking initiation. We find little evidence of higher cigarette smoking persisting beyond the point at which youth age out of the laws. Our results also show little effect of the laws on youth drinking, binge drinking, and marijuana use. Taking these together, our findings suggest a possible unintended effect of e-cigarette MLSA laws—rising cigarette use in the short term while youth are restricted from purchasing e-cigarettes.

The Effects of E-Cigarette Taxes on E-Cigarette Prices and Tobacco Product Sales: Evidence from Retail Panel Data

Chad D. Cotti, Charles J. Courtemanche, Johanna Catherine Maclean, Erik T. Nesson, Michael F. Pesko & Nathan Tefft

WORKING PAPER 26724 **DOI** 10.3386/w26724 **ISSUE DATE** January 2020 **REVISION DATE** April 2021

This paper estimates effects of e-cigarette taxes enacted in eight states and two large counties on e-cigarette prices, e-cigarette sales, and sales of other tobacco products. We use NielsenIQ Retail Scanner data from 2011 to 2017, comprising approximately 35,000 retailers nationally, and develop a method to standardize e-cigarette taxes since adopting localities have taxed these products in heterogeneous ways. We estimate a tax-to-price pass-through rate of 1.44 and a Herfindahl–Hirschman Index of 0.246 for e-cigarette retail purchases, indicating a moderately to highly concentrated market structure theoretically linked to tax over-shifting. We then calculate an e-cigarette own-price elasticity of -1.30 and positive cross-price elasticities of demand between e-cigarettes and cigarettes, suggesting they are economic substitutes. Other analyses explore heterogeneity in tax and price responses across flavored and non-flavored e-cigarettes and cigarettes.

“Our results suggest that e-cigarettes are elastic goods and their use substantially reduces cigarette sales.”

Journal of Risk and Uncertainty (2020) 60:229–258
https://doi.org/10.1007/s11166-020-09330-9

The effects of traditional cigarette and e-cigarette tax rates on adult tobacco product use

Michael F. Pesko[1] · Charles J. Courtemanche[2,3,4] · Johanna Catherine Maclean[3,4,5]

Published online: 24 July 2020

Abstract

We study the effects of traditional cigarette and e-cigarette taxes on use of these products among adults in the United States. Data are drawn from the Behavioral Risk Factor Surveillance System and National Health Interview Survey over the period 2011 to 2018. Using two-way fixed effects models, we find evidence that higher traditional cigarette tax rates reduce adult traditional cigarette use and increase adult e-cigarette use. Similarly, we find that higher e-cigarette tax rates increase traditional cigarette use and reduce e-cigarette use. Cross-tax effects imply that the products are economic substitutes. Our results suggest that a proposed national e-cigarette tax of $1.65 per milliliter of vaping liquid would raise the proportion of adults who smoke cigarettes daily by approximately 1 percentage point, translating to 2.5 million extra adult daily smokers compared to the counterfactual of not having the tax.

Keywords Smoking · E-cigarettes · Taxation · Elasticity

JEL Classifications H2 · I12 · I18

How does electronic cigarette access affect adolescent smoking

Published on Dec 1, 2015 in Journal of Health Economics 2.827
· DOI :10.1016/J.JHEALECO.2015.10.003 Copy DOI

Abigail S. Friedman 7 (Yale University)

Abstract

Understanding electronic cigarettes' effect on tobacco smoking is a central economic and policy issue. This paper examines the causal impact of e-cigarette access on conventional cigarette use by adolescents. Regression analyses consider how state bans on e-cigarette sales to minors influence smoking rates among 12 to 17 year olds. Such bans yield a statistically significant 0.9 percentage point increase in recent smoking in this age group, relative to states without such bans. Results are robust to multiple specifications as well as several falsification and placebo checks. This effect is both consistent with e-cigarette access reducing smoking among minors, and large: banning electronic cigarette sales to minors counteracts 70 percent of the downward pre-trend in teen cigarette smoking for a given two-year period.

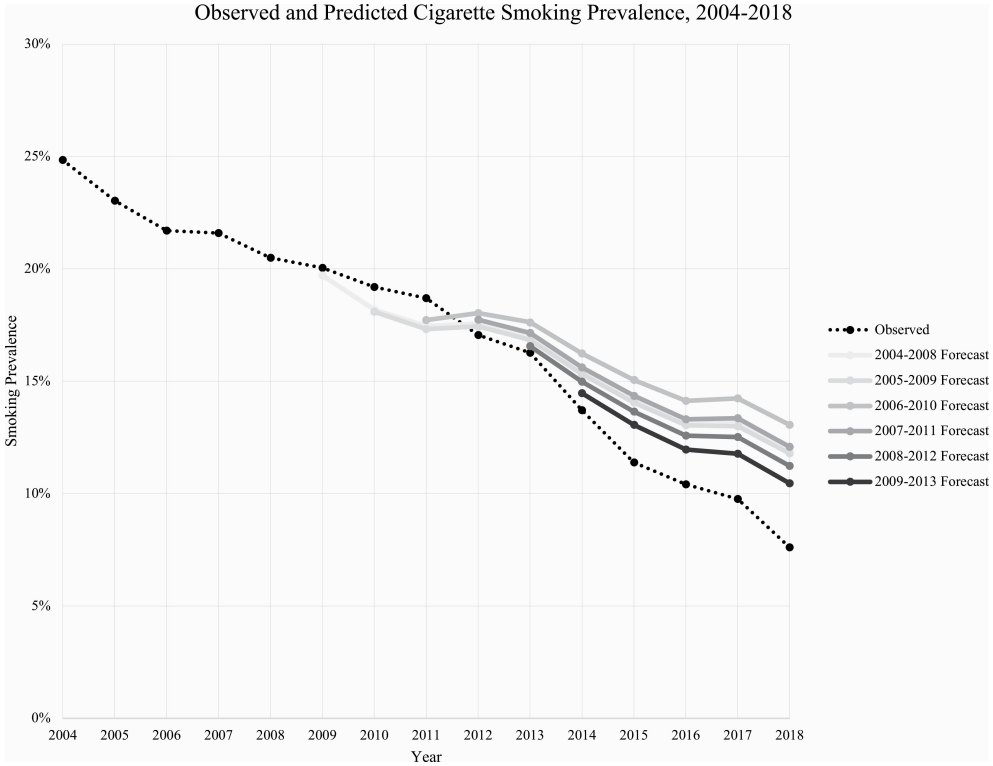
2. Effect of Drastic Increase in Youth E-Cigarette Use on Youth Smoking Over Time

High School Seniors Who Used E-Cigarettes May Have Otherwise Been Cigarette Smokers: Evidence from Monitoring the Future (United States, 2009-2018)

Sokol NA, Feldman JM. *Nicotine & Tobacco Research* 2021.

2009-2018 Monitoring the Future Study
Forecast future smoking prevalence using propensity score modeling and compared to actual smoking prevalence

Figure 1. Observed versus predicted cigarette smoking prevalence.



Nicotine Tob Res, ntab102, https://doi.org/10.1093/ntr/ntab102

“Our study provides further evidence in support of earlier findings that, although youth e-cigarette use has increased rapidly, the decline in current smoking among 12th graders has accelerated since the availability of e-cigarettes. Our findings also supported work showing that adolescents who tried e-cigarettes as their first tobacco product were less likely to have ever smoked or currently smoke cigarettes compared with adolescents who used another non-cigarette tobacco product first, or matched controls.”

“Among nonsmoking youth, vaping is largely concentrated among those who would have likely smoked prior to the introduction of e-cigarettes, and the introduction of e-cigarettes has coincided with an acceleration in the decline in youth smoking rates. E-cigarettes may be an important tool for population-level harm reduction, even considering their impact on youth.”

What About Effects on Adult Smokers?

Journal of Risk and Uncertainty (2020) 60:207–228
https://doi.org/10.1007/s11166-020-09326-5

E-cigarettes and adult smoking: Evidence from Minnesota

Henry Saffer[1] · Daniel Dench[2] · Michael Grossman[1,2,3] · Dhaval Dave[1,3,4]

Published online: 16 July 2020

Abstract

E-cigarettes provide nicotine in a vapor form, which is considered less harmful than the smoke from combustible cigarettes because it does not contain the toxins that are found in tobacco smoke. E-cigarettes may be effective in helping smokers to quit or they might simply provide smokers a method of bypassing smoking restrictions. There is very little causal evidence to date on how e-cigarette use impacts smoking cessation among adults. Minnesota was the first to impose a tax on e-cigarettes. This tax provides a plausibly exogenous deterrent to e-cigarette use. We utilize data from the Current Population Survey Tobacco Use Supplements from 1992 to 2015 to assess how the Minnesota tax increase impacted smoking cessation among adult smokers. Estimates suggest that the e-cigarette tax increased adult smoking and reduced smoking cessation in Minnesota, relative to the control group, and imply a cross elasticity of current smoking participation with respect to e-cigarette prices of 0.13. Our results suggest that in the sample period about 32,400 additional adult smokers would have quit smoking in Minnesota in the absence of the tax. If this tax were imposed on a national level about 1.8 million smokers would be deterred from quitting in a ten year period. The taxation of e-cigarettes at the same rate as cigarettes could deter more than 2.75 million smokers nationally from quitting in the same period. The public health benefits of not taxing e-ciga-

What do the Tobacco Analysts Say?

Tobacco analysts have estimated that if the FDA doesn't approve PMTA's for any e-cigarette company, then about 11% of US nicotine volumes will shift into other categories, likely cigarettes.

Conceptual Model Suggested by the Actual Evidence