



# Estimating the Effects of Tobacco-21 on Youth Tobacco Use and Sales

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## [Rahi Abouk](#)

William Paterson University

## [Prabal K. De](#)

City College of New York; CUNY Graduate Center

## [Michael Pesko](#)

Georgia State University - Department of Economics

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## Abstract

We examine the effect of Tobacco 21 laws (T21), which raise the minimum legal sale age of tobacco to 21. We estimate difference-in-differences models using the Monitoring the Future (MTF) survey data and Nielsen Retail Scanner data from 2012 to 2019. Our outcomes include cigarette and e-cigarette use and sales and potential mechanisms of T21 such as perceived risks of using cigarettes and e-cigarettes and retailer ID checking. We find that T21 sizably reduces 12th grade cigarette use by 35 percent and modestly reduces cigarette use for 8th and 10th graders. We also find some evidence that T21 reduces e-cigarette use across all grades. We find that T21 increases ID checking and perceived risks of both tobacco products. Finally, analyses of the 2012-2019 Nielsen Retail Scanner Data suggest that in counties with the highest quartile of the share of individuals under 21, T21 reduced cigarette sales by 12.3% and e-cigarette sales by 49.1%.

**Keywords:** Youth Smoking, Tobacco 21

**JEL Classification:** I12, I18

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