



INDEPENDENT FISCAL OFFICE

Second Floor, Rachel Carson State Office Building
400 Market Street
Harrisburg, Pennsylvania 17105

March 7, 2017

The Honorable Seth Grove
7 East Wing
Harrisburg, PA 17120

Dear Representative Grove:

This letter responds to your request for the Independent Fiscal Office (IFO) to review the impact of Philadelphia's local cigarette and beverage taxes on state revenue collections.

Philadelphia Cigarette Tax

Act 131 of 2014 authorized the Philadelphia school district (with approval of the city) to levy a \$2 per pack tax on all cigarettes and little cigars sold in Philadelphia. The tax was effective October 1, 2014 and is collected by the Pennsylvania Department of Revenue (DOR) in conjunction with the state tax imposed on cigarettes. Revenues, less DOR's administrative costs, are deposited in the Local Cigarette Tax Fund and distributed to the school district. Combined with the state tax levy, the cigarette tax imposed on one pack of cigarettes sold in Philadelphia is \$4.60.

Philadelphia cigarette tax collections totaled \$59.7 million for fiscal year (FY) 2015-16.¹ Collections for FY 2016-17 are expected to fall to \$48.1 million, due in part to the \$1.00 per pack increase in the state cigarette tax rate effective August 1, 2016. The school district is held harmless from any reduction in local cigarette tax collections under Act 84 of 2016, which guarantees a transfer of at least \$58 million annually to the Local Cigarette Tax Fund (school district). Any difference between the amount actually deposited in the fund and the \$58 million minimum is transferred from General Fund revenues in July.

The IFO estimates that the Philadelphia cigarette tax reduces Pennsylvania tax collections by \$10 million annually.² The estimate assumes that the tax increase is fully passed forward to consumers, who have a price elasticity of -0.75.³ This assumption implies that the estimated 24 percent increase in the after-tax price of cigarettes reduced the number of taxable packs sold in Philadelphia by 18 percent. The estimate

¹ Collections are prior to the deduction of DOR's administrative costs.

² The reduction includes the impact on both cigarette and sales and use taxes.

³ It is also possible that a small portion of the tax is not pushed forward into the final price. However, retail price data suggest that the post-tax price rose by roughly the same amount as the recent (August 2016) one-dollar increase in the state cigarette tax.

also assumes that 25 percent of the reduced sales in the city were shifted to other Pennsylvania locations, so that state tax collections were not affected by those shifted purchases. The estimate does not include the General Fund impact from the guaranteed minimum transfer under Act 84, approximately \$10 million for FY 2017-18.

Philadelphia Beverage Tax

The Philadelphia beverage tax is imposed at a rate of 1.5 cents per ounce on sweetened beverages sold to Philadelphia retailers. The city defines a sweetened beverage as any non-alcoholic beverage that lists a sugar-based sweetener or artificial sugar substitute as an ingredient.⁴ The tax is remitted by sweetened beverage distributors on the 20th of the month for the prior month's sales.

The tax became effective January 1, 2017, with the first payment due in February. The city anticipates collections of \$90 million annually (roughly \$7.5 million per month). Revenues are earmarked to fund Pre-K programs, community schools, recreation centers, parks and the city's library system. In December, the County Court of Common Pleas upheld the validity of the beverage tax, but the ruling has since been appealed. Oral arguments in the Commonwealth Court case are expected to begin in early April.

Academic research suggests a consumer price elasticity (i.e., the behavioral response) of -0.8 to -1.0 for soda products.⁵ For example, a behavioral response parameter of -1.0 implies that a 10 percent increase in the after-tax price of soda due to the new tax would reduce the quantity sold by 10 percent. Retail pricing data suggest that the new tax could result in a weighted average price increase of roughly 30 percent across all types of taxable beverages. If that price increase is accurate, then the application of the behavioral response parameter suggests a decline in quantity sold of up to 30 percent. (Note: This also assumes that the new tax is fully passed forward to consumers, which is a standard assumption for sales and excise taxes levied on consumer purchases.⁶) Under these parameters, the Philadelphia beverage tax would have no material direct impact on state sales and use tax (SUT) revenue collections. Reduced SUT collections due to lower consumption would be offset by higher SUT collections from the inclusion of the city beverage tax in the final purchase price.^{7,8}

The IFO notes one caveat to this analysis. For the city taxes levied on cigarettes and beverages, the analysis only considered the impact on purchases of those specific products, but not others. It is very possible that consumers are motivated to purchase those products out-of-state (as opposed to consuming less), and some may also purchase other sundry items that are taxable during those trips. For example, they may also

⁴ See <https://beta.phila.gov/media/20170209150802/CertifiedCopy16017601-1.pdf>. Tax is imposed on syrups and other concentrates at a rate of 1.5 cents per fluid ounce of the resulting beverage, when prepared according to the manufacturer's specifications.

⁵ Andreyeva T., Long MW and Brownell KD. The Impact of Food Prices on Consumption: A Systematic Review of Research on the Price Elasticity of Demand for Food. *American Journal of Public Health*. Dec. 17, 2009.

⁶ It is also possible that a small portion of the tax is not pushed forward into the final price. However, that outcome would not affect the general results if the same consumer response parameters are used for the analysis.

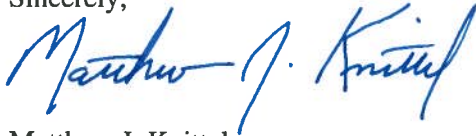
⁷ The 6 percent state SUT is imposed on the purchase price of sweetened beverages. When the beverage tax is passed through to consumers, the purchase price increases. The increased purchase price results in higher state and local SUT collections.

⁸ Similar to cigarettes, some of the reduction in taxable beverage purchases within the city would be shifted to other in-state locations, and the state would continue to collect SUT on those purchases, albeit at the lower price. To the extent that occurs, the beverage tax could have a modest positive impact on state revenues.

purchase fast food, wine, beer or gasoline that would have otherwise been purchased in the Commonwealth. To the extent that activity occurs, it will negatively impact state tax revenues.

I hope that you find this information useful. Consistent with IFO policy, this letter will be posted to the office's website no later than the third business day following transmittal. Please do not hesitate to contact me if you have any questions or comments.

Sincerely,

A handwritten signature in blue ink that reads "Matthew J. Knittel". The signature is written in a cursive style with a large initial "M" and a distinct "J" and "K".

Matthew J. Knittel
Director