An Economic Assessment of New York's Smoking Policies:

Higher Costs on Consumers and Society without Greater Achievement of Public Health Goals



Michael Stojsavljevich Wayne Winegarden, Ph.D.



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CONTENTS

EXECUTIVE SUMMARY	5
INTRODUCTION	7
NEW YORK'S SMOKING POLICIES	8
SMOKING INCIDENCE AND TAX-PAID CIGARETTE SALES	13
A COMPARATIVE EXAMINATION OF NEW YORK'S SMOKING INCIDENCE	15
SMOKING INCIDENCE BY INCOME AND AGE	19
THE ADVERSE ECONOMIC IMPACT FROM EXCESSIVE CIGARETTE TAXES	21
THE ILLEGAL CIGARETTE TRADE	22
TAX-PAID SALES VERSUS TOTAL CIGARETTE CONSUMPTION	27
WHAT ABOUT ANTI-SMOKING EXPENDITURES?	29
CONCLUSION	30
ENDNOTES	31
ABOUT THE AUTHORS	34
ABOUT PRI	 35

EXECUTIVE SUMMARY

Over the past 10 years, New York State increased taxes on cigarettes by the largest amount compared to every other U.S. state. As a result, New York State now levies the highest state tax burden on cigarettes in the U.S., which can comprise up to 77 percent of the price of a pack of cigarettes in New York City (including New York City's \$1.50 local excise tax). In addition to the highest tax burden in the U.S., New York prohibits smoking in government workplaces, private workplaces, schools, childcare facilities, restaurants, bars (except for cigar bars), casinos, retail stores, recreational facilities, and bans the sale of cigarettes over the Internet. These regulations are also among the most restrictive tobacco control policies in the U.S.

While New York State's smoking incidence has fallen during this time period, New York has not achieved its public health goals of achieving a significantly lower smoking incidence or significantly lower cigarette consumption when compared to the other states that have implemented less restrictive smoking policies.

Although New York State has implemented larger tax increases than any other state between 1996 and 2010, it is ranked 12th in terms of smoking incidence declines over the same time period. And, several of the states that have seen larger declines in smoking incidence (such as Tennessee and Oregon) have significantly smaller tax rates. By some measures, New York's decline in smoking incidence, particularly youth smoking incidence, was even less flattering. The percentage of 9th through 12th graders in the U.S. who smoked more than 10 cigarettes per day fell from 13.8 percent in 1997 to 7.8 percent in 2011, it rose in New York from 15.2 percent in 1997 to 16.3 percent in 2011.

Similarly, while the decline in per capita tax-paid sales in New York is larger than the national decline, the decline in total cigarette consumption per capita in New York has been similar to the decline in national per capita sales. The difference between total cigarette consumption and tax-paid sales is purchases made from alternative and illegal cigarette sellers.

There is substantial evidence that the large tax increases and regulatory changes that New York has implemented in a relatively short period of time have encouraged purchases of illegal cigarettes. Studies have estimated that illegal and other un-taxed cigarette sales could be as high as 47 percent to 52 percent of the total market as of FY2011 (the latest estimates of un-taxed cigarette sales available).²

Total cigarette consumption per capita between FY2002 and FY2011 are estimated by adding the New York Association of Convenience Stores estimates for un-taxed cigarette sales to the total tax-paid cigarette sales. Over this time period, national cigarette sales per capita declined by 36.2 percent. While tax-paid sales per capita in New York declined by a significantly higher 60.6 percent, once estimates for un-taxed cigarette sales in New York are included, the decline in New York's total cigarette consumption per capita was 41.8 percent—closer to the national average decline.³

These data illustrate that the growth in un-taxed cigarette sales has countered much of the decline in tax-paid cigarette sales; consequently, the increase in these un-taxed sales is thwarting New York's public health goals.

Such a large amount of illegal sales also creates many adverse economic consequences for retailers, consumers and the government. The lost sales to legitimate retailers reduces overall retail sales and jobs in the state. A New York Association of Convenience Stores study found that if not for cigarette sales in the alternative market, cigarette retailing could be contributing nearly 13 thousand jobs, almost \$500 million in wages, and \$1.1 billion toward New York's economy—double its current contribution.⁴

Consumers of legal tax-paid cigarettes also suffer; particularly low-income consumers. Due to the extremely high tax burden and the smaller incomes of low-income consumers, a *New York Times* article reported that low income smokers in New York spend 25 percent of their income on cigarettes.⁵

The government of New York is also adversely impacted. Farrelly (2012) has estimated that the lost cigarette tax revenues due to illegal cigarette sales could have been as high as \$1.4 billion in 2010—or 2.2 percent of New York's total tax revenues for that year.⁶

The conclusion of this study is that New York's tobacco control policies are not a model that others should emulate as an effective approach to tobacco regulation.

INTRODUCTION

According to the New York Department of Health, the state's public health goals include reducing the use and prevalence of smoking.⁷ To achieve this goal, the New York Department of Health advocates high cigarette prices and restrictive smoking regulations.⁸ New York's policy actions have been consistent with the New York Department of Health's recommendations. New York (New York State and New York City) levies the highest state and local cigarette excise tax burden in the country and very restrictive smoking regulations.

This analysis reviews economic studies and publically available data to provide perspective on whether these policies have been effective.

Our examination compares the changes in New York's smoking incidence, tax paid sales, and black market activity to the smoking incidence and sales patterns in other states accounting for alternative approaches to cigarette taxes and smoking restrictions. The findings illustrate that, on a per capita basis, tax-paid cigarette sales in New York have declined. However, the declines in total cigarette consumption per capita (accounting for both tax-paid cigarette sales and non-taxed cigarette sales) are similar to the trends in many other states with lower taxes or less restrictive regulations. The same pattern is true with respect to the declines in New York's smoking incidence. Consequently, New York's policies have not created significantly larger declines in cigarette consumption or significantly lower smoking incidence compared to the other states that have implemented less restrictive taxes and regulations.

New York's policies have created significant costs on the economy, however. The steep declines in taxpaid cigarette sales have harmed the legitimate retail sector costing the state potential jobs and income. Additionally, the significant increase in illegal activity has created many other undesired social and economic consequences.

The inability of New York's policies to generate a significantly larger reduction in smoking incidence and cigarette consumption than other states, coupled with the large economic costs and significant level of illegal activity that are occurring in New York, provides a strong argument against the use of New York's policies in other states or countries.

NEW YORK'S SMOKING POLICIES

Anti-smoking policies commonly include cigarette taxes (which in the United States include federal, state and local excise taxes, state and local general sales taxes, and revenues that are paid to the states due to the Master Settlement Agreement). New York State levies the highest state excise tax in the country and the highest combined state and local excise tax burden is levied in New York City.

When examining smoking policies, tax policy does not occur in a vacuum and is usually accompanied by regulatory measures. New York has implemented very restrictive smoking regulations. New York prohibits smoking in government workplaces, private workplaces, schools, childcare facilities, restaurants, bars (except for cigar bars), casinos, retail stores, and recreational facilities, which was effective July 24, 2003. New York also bans the sale of cigarettes over the Internet (which was enforced beginning in June 2003), and New York City has passed a law that bans smoking in all public parks and beaches (implementation of a state ban is currently on hold due to a pending legal challenge). 11

Starting with New York's tax policies, the state cigarette excise tax rate is currently \$4.35 per pack—the highest state cigarette excise tax rate in the country as of this writing. Additionally, those New Yorkers who live in New York City must pay an additional \$1.50 per pack in local cigarette excise taxes, which creates the highest combined state and local excise tax burden in the country. While implemented by the federal government, New York smokers must also pay the federal excise tax of \$1.01 per pack.

Next, sales taxes must be paid. Including the state and local sales tax, sales tax rates can be as high as 8.875 percent of the retail sales price in New York City (comprised of a statewide 4.0 percent sales tax plus a New York City sales tax of 4.875 percent). Based on the average retail price of cigarettes excluding the costs of the sales tax (\$9.85) New York State and New York City general sales taxes add approximately \$0.87 to the price of a pack of cigarettes. Including the impact of the sales tax, the average retail price of cigarettes in New York City was \$10.72 per pack of 20 cigarettes as of FY2012—see Table 1 on the next page.

Table 1

Breakdown of New York City Taxes as a Share of Retail Price

TAX	FY1996 RATE	FY2007 RATE	FY2012 RATE
New York Excise Tax	\$0.56	\$1.50	\$4.35
New York City Excise Tax	\$0.08	\$1.50	\$1.50
Federal Excise Tax	\$0.24	\$0.39	\$1.01
Sales Taxes	\$0.18	\$0.44	\$0.87
Master Settlement Agreement	\$0.00	\$0.49	\$0.49
Total Taxes	\$1.06	\$4.32	\$8.22
Average Retail Sales Price	\$2.40	\$5.91	\$10.72
Total Taxes as a Percentage of the Retail Sales Price	44.0%	73.1%	76.7%

Next, there are the fees associated with the Master Settlement Agreement (MSA). According to the Tax Burden on Tobacco, states received a total of \$7.1 billion in total MSA revenues derived from total state taxpaid cigarette sales of 14.4 billion packs in 2011.

This equates to an additional \$0.49 per pack in state revenues from the MSA. The state governments mandated that MSA revenues, as part of the settlement, pass the costs of the settlement through to the consumer. Consequently, the revenues paid to the state government function as a tax from an economic perspective.

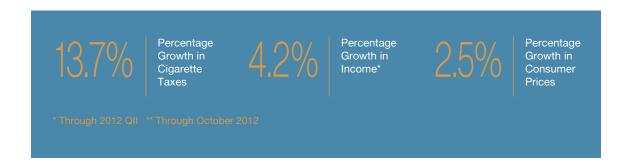
In total, smokers in New York City—the highest taxed consumers in New York State—pay \$8.22 in federal, state, and local cigarette and sales taxes, which equate to slightly less than 77 percent of the final retail price of a pack of 20 cigarettes. Table 1 summarizes the total tax burden in New York City as of FY2012, and compares this burden to the

total tax burden on cigarettes in New York City in FY1996 (prior to the MSA) and in FY2007 (prior to the significant state excise tax rate increases).

The total cigarette tax burden in FY2012 is \$7.16 higher than the burden in FY1996—before New York's major tax increases and the national MSA. This average annual increase of 13.7 percent (678 percent total increase) in New York's tax burden between FY1996 and FY2012 is significantly higher than the average annual increase of 2.5 percent (47.4 percent total increase) in overall consumer prices, or New York's average annual growth in personal income of 4.2 percent (91.7 percent total increase); see Figure 1. Consequently, New York City now implements the highest cigarette tax burden in the country that has grown at a rate significantly faster than the rise in the overall price level and the growth in personal income.

Figure 1

Average Annual Percentage Change in Cigarette Taxes Imposed in New York Compared to the Percentage Change in Consumer Prices FY1996-FY2012



The growth in the tax burden in New York City and New York State has also been significantly higher than the growth in taxes in every other state and Washington D.C., see Figure 2. Figure 2 compares the average annual growth in cigarette taxes in New York State and New York City to the growth in cigarette taxes in the other states; and the overall growth in inflation as measured by the consumer price index (CPI). While the growth in cigarette taxes in all states exceeded the growth in inflation, the growth in cigarette taxes in New York State and New York City exceeded the growth in cigarette taxes in all other states.

Figure 2

Average Annual Percentage Change in Cigarette Taxes All 50 States, Washington, D.C., and New York City FY1996–FY2012

One theoretical possibility, however, is that the income of the average New York household is higher than the average household income of the other U.S. states, which would lower the tax burden as a percentage of income. Based on the U.S. Census median household income for 2010-11, New York's median household income was \$50,994 or the state with the 24th highest median household income. New Yorkers do not, on average, have incomes that are high enough to blunt the impact from its exceptionally high cigarette tax burden.

Figure 3 compares each state's cigarette tax burden accounting for the average income of each state. The values in Figure 3 are the total tax burden for 100 packs of cigarettes relative to the median household income for each state. Figure 3 illustrates that even accounting for the different levels of income across the U.S., New York's tax burden is still the highest.

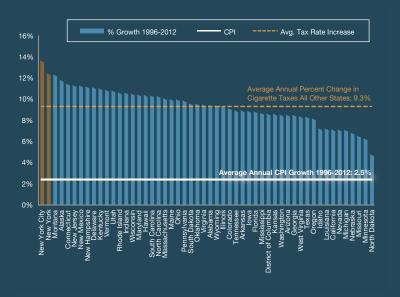
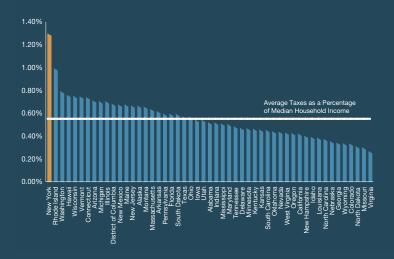


Figure 3

Total Cigarette Taxes on 100 Packs of Cigarettes as a Percentage of Median Household Income by State 2012



1 State Median Income: http://www.census.gov/hhes/www/income/data/statemedian/index.html. 2 Calculations based on Orzechowski, Bill and Walker, Rob *The Tax Burden on Tobacco*, Vol. 46, 2011; and median household income from the U.S. Census, www.census.gov.

With respect to smoking regulations, as stated earlier, New York prohibits smoking in government workplaces, private workplaces, schools, childcare facilities, restaurants, bars (except for cigar bars), casinos, retail stores, and recreational facilities, which was effective July 24, 2003. Due to these restrictions, New York is one of 21 states that impose smoking bans that the U.S. Centers for Disease Control and Prevention (CDC) judges as a "wide smoking ban" or the most comprehensive smoking bans. 19

The CDC has also noted that New York, "allows local regulation of tobacco industry promotions, sampling and display of tobacco products in commercial establishments." Additionally the CDC notes that "New York requires all establishments selling tobacco products over the counter and by vending machine to be licensed. Currently, 38 states require licensure for both over the counter and vending machine sales." New York also imposes a minimum price law that prohibits cigarettes from being sold below a state mandated price. ²²

New York also bans the sale of cigarettes over the Internet (which was enforced beginning in June 2003), and New York City has passed a law that bans smoking in all public parks and beaches (implementation of a state ban is currently on hold due to a pending legal challenge).²³ Taken together, all of these restrictions and requirements have created a very strict smoking regulatory environment in New York. In fact, in light of these restrictions, the Mercatus Center at George Mason University has referred to the tobacco laws in New York as "extremely strict".²⁴

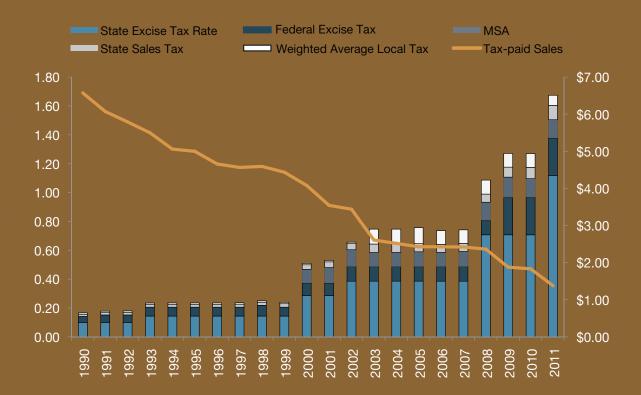
SMOKING INCIDENCE AND TAX-PAID CIGARETTE SALES

One of the goals of New York's tobacco control policies is to reduce the number of people who smoke. For instance, State Health Commissioner Richard F. Daines claimed that the \$1.25 per pack tax increase (this tax increase raised the total state excise tax rate to \$2.75 per pack effective June 2008) was critical in helping New York "...reach [its] goal of 1 million fewer smokers by 2010." Therefore, the impact from New York's tobacco control policies on the change in smoking incidence is an important success metric.

Consistent with reducing the number of people who smoke, New York's tobacco control policies also aims to accelerate the decline in total cigarette sales. New York's tax-paid cigarette sales have experienced a long-term decline since 1990, see Figure 4. The blue line in Figure 4 tracks the total tax-paid cigarette sales in New York. The multi-colored bars in Figure 4 present the changes in the total tax burden in New York by type of tax. While a long-term decline in tax-paid sales is evident, there are periods of sharper declines followed by periods of slower declines. While there are many influences occurring simultaneously, the periods of sharp tax increases are associated with sharp downward declines in tax-paid sales—as expected from price theory when prices rise people buy less of the now more expensive good, everything else equal.

Figure 4

New York Tax-Paid Sales Compared to Cigarette Taxes Levied in New York FY1990 - FY2011²⁶



However, everything else is not equal. Rising prices for tax-paid cigarettes reduces the demand for tax-paid cigarettes, this is true. Tax-paid cigarettes are an incomplete measure of total cigarette consumption—a measure whose incompleteness grows as tax rates rise. The impact from tobacco control policies should be judged against total cigarette consumption, not a sub-set of total consumption (e.g. tax-paid sales).

If the policies of imposing the largest cigarette excise tax increase, the highest cigarette excise tax rate, and "extremely strict" smoking regulations were more effective at reducing smoking incidence and total cigarette consumption, then the results should be evident in New York. Below we review the change in smoking incidence and total cigarette consumption in New York illustrating that New York's experience is similar to many other states that have implemented less restrictive policies.

A COMPARATIVE EXAMINATION OF NEW YORK'S SMOKING INCIDENCE

A 2011 RTI International report prepared for the New York Department of Health evaluated the effectiveness of New York's tobacco control program.²⁷ The report documents that while smoking incidence and tax-paid sales declined during this period, New York's smoking policies did not achieve its established goal—it missed the goal by nearly 300,000 smokers (a reduction of more than 700,000 smokers while the targeted reduction was 1 million smokers).²⁸

Even though New York has the highest state cigarette excise tax rate in the country, has implemented the largest tax increases, and has restrictive smoking regulations, New York was not the leader in smoking incidence decline—Massachusetts was. Not only was New York not the leader in declining smoking incidence, states

with lower taxes and less restrictive smoking regulations (such as Tennessee whose smoking incidence declined by 7.9 percentage points) had better results (New York's smoking incidence declined 7.7 percentage points).

In fact, New York's decline in smoking incidence is only the 12th highest over this time period. Nor is New York's current smoking incidence the lowest among the top 12 declining states—Connecticut's is. Table 2 presents the smoking trends over the past 14 years in New York as well as the 11 states that have seen larger declines in overall smoking incidence than New York.²⁹ New York's smoking incidence has trended in the same direction and in roughly the same magnitude as many other states including those with lower tax rates and less restrictive smoking regulations.

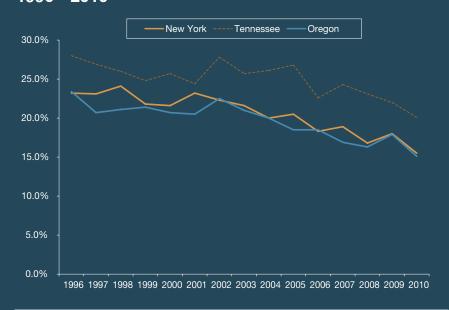
Table 2

Percentage Point Change in Smoking Incidence Compared to State Cigarette Excise Tax Rates New York and States with Similar Incidence Declines as New York 1996 – 2010 (2012 for Tax Rates)

STATE	CHANGE SMOKING INCIDENCE 1996 – 2010 (PERCENTAGE POINT, P.P.)	TAX RATE 2012	CHANGE IN TAX RATE 1996 – 2012	2010 SMOKING INCIDENCE ³⁰
Massachusetts	-9.3%	\$2.51	\$2.00	14.1%
Arizona	-8.7%	\$2.00	\$1.42	15.0%
Vermont	-8.7%	\$2.62	\$2.18	15.4%
Connecticut	-8.6%	\$3.40	\$2.90	13.2%
Oregon	-8.3%	\$1.18	\$0.80	15.1%
New Jersey	-8.3%	\$2.70	\$2.30	14.4%
Washington	-8.2%	\$3.03	\$2.21	15.2%
Illinois	-7.9%	\$1.98	\$1.54	16.9%
New Hampshire	-7.9%	\$1.68	\$1.43	16.9%
Tennessee	-7.9%	\$0.62	\$0.49	20.1%
Hawaii	-7.7%	\$3.20	\$2.60	14.5%
New York	-7.7%	\$4.35	\$3.79	15.5%

Figure 5 compares the decline in New York's smoking incidence to two relatively lower-taxed states with larger declines in smoking incidence (Tennessee and Oregon) and to two relatively high-taxed states with larger declines in smoking incidence (Arizona and Connecticut). Figure 6 illustrates the total decline in smoking incidence for all 50 states between 1996 and 2010 (New York represented by the red bar). Figures 5 & 6 confirm the conclusion from Table 2: the decline in New York's smoking incidence has not been significantly greater than many other states some of whom impose smoking regulations and cigarette excise taxes that are not as burdensome.

Figure 5
Smoking Incidence New York, Tennessee, Oregon, Arizona and Connecticut 1996 - 2010



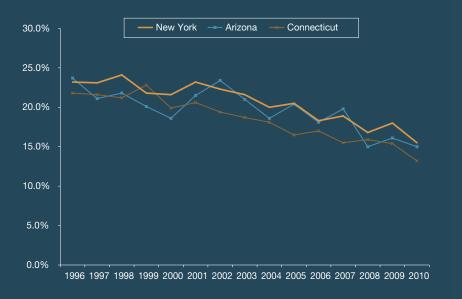
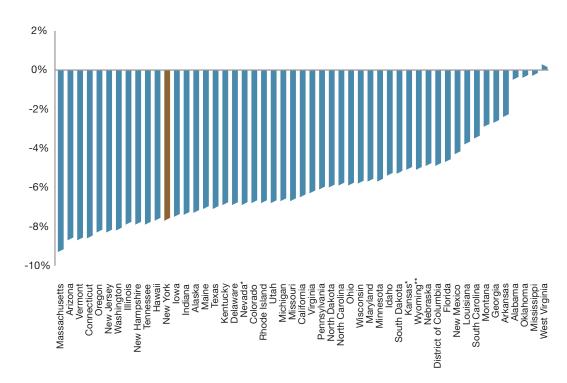


Figure 6

Percentage Point Change in Smoking Incidence All 50 States & Washington D.C. 1996 - 2010



SMOKING INCIDENCE BY INCOME AND AGE

The change in smoking incidence by income group show a similar dynamic—the declines in New York are not significantly different than those states that have been experiencing similar declines in overall smoking incidence. Figure 7 presents the change in smoking incidence in New York compared to the same group of states as Table 2. The change in smoking incidence is similar across all of these states despite the wide variance in smoking policies.

Figure 7

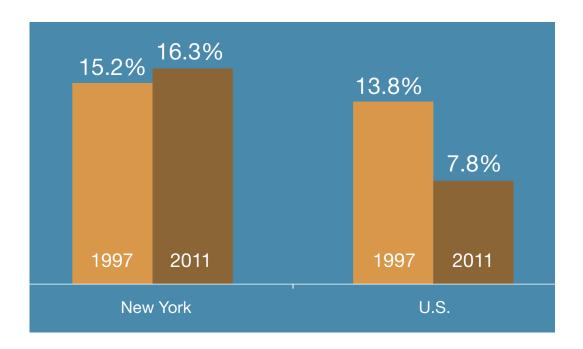
Change in Smoking Incidence by Income Group New York vs. States with Similar Incidence Declines 1996 vs. 2010³¹



New York's performance is even less flattering with respect to youth smoking incidence. The Youth Risk Behavior Survey conducted by the CDC surveys 9th through 12th graders about their participation in risky behaviors, including tobacco use. With respect to significant tobacco use, the survey asks whether the youth "smokes more than 10 cigarettes per day." Figure 8 reproduces the results for New York compared to the U.S. average in 1997 and 2011. As is evidence in Figure 8, while the average percentage of 9th through 12th graders in the U.S. who smoked more than 10 cigarettes per day fell from 13.8 percent in 1997 to 7.8 percent in 2011, it rose in New York from 15.2 percent in 1997 to 16.3 percent in 2011. Clearly, New York's more restrictive smoking policies have not been more successful based on this metric.

Figure 8

Percentage of Youth Who Smoked more than 10 cigarettes per day New York vs. U.S. Average 1997 and 2011³²



THE ADVERSE ECONOMIC IMPACT FROM EXCESSIVE CIGARETTE TAXES

Measuring the trends in total cigarette consumption requires an understanding of the trends in both taxpaid cigarette sales and illegal cigarette sales.

The Lure of High Illegal Profits from Criminal Activities Leads to More Criminal Activities

The incentive to engage in the illegal cigarette trade in New York has grown in tandem with the increases in cigarette taxes. The Virginia State Crime Commission documented the large profit potential created by New York's high cigarette excise taxes. According to the Virginia State Crime Commission:

The Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) estimates the amount of profit that a cigarette trafficker can make, taking cigarettes from Virginia to New York City, as:

- \$8.50 for a pack of cigarettes
- \$85.00 for a carton of cigarettes
- \$5,100.00 for a case of cigarettes
- \$4,080,000.00 for a single truckload of 800 cases of cigarettes.³³

The Tax Foundation, elaborating on the Virginia State Crime Commission findings noted that,

According to an agent of the Virginia State Police, this means that illegal cigarette trafficking "now [has] a higher profit margin than cocaine, heroin, marijuana, or guns."...

The lesson here is that tax competition exists, and in this case can have unintended, if not violent, results.³⁴

A 2011 Government Accountability Office of the US Congress (GAO) study also directly noted the connection between state excise tax rates and higher smuggling incentives:

While the national average retail price of a pack of cigarettes was \$5.95 in 2010, in New York City, a pack can cost up to \$13.00 or more due to high combined state and city taxes. In contrast, a pack of cigarettes in Richmond, Virginia, can cost approximately \$5.00, due to low state cigarette taxes there. The tax differential between a case of cigarettes (typically containing 12,000 cigarettes) in New York City and Richmond is over \$3,000, creating incentives for illicit trade and profits.³⁵

As both the GAO and Virginia State Crime Commission analyses illustrate, the high tax level in New York has created a large incentive for criminal organizations to engage in the illegal cigarette trade. There is a growing body of evidence that illustrates that as the incentive to engage in illegal cigarette smuggling in New York has increased, the pervasiveness of un-taxed cigarette sales has increased.

THE ILLEGAL CIGARETTE TRADE

The problem of illegal cigarette sales in New York is not a new phenomenon. Fleenor (2003) documents the long history between high taxes in New York and increased illegal activity.³⁶ According to Fleenor, New York City:

...imposed a temporary 1 cent per pack levy in 1938.... At the time, a pack of cigarettes cost around 15 cents. As had been predicted, this tax triggered the beginnings of border shopping, cigarette bootlegging, and ancillary crime in the city according to contemporary accounts. The state government experienced similar problems when it enacted its own tax in 1939. Even after the expiration of the temporary city levy, these problems were particularly acute in the New York City area because of its close proximity to New Jersey, which did not tax cigarettes until 1948."

Fleenor (2003) continues by documenting the long historical connection between high cigarette smuggling in New York when New York's cigarette taxes were relatively high, and a decline in cigarette smuggling when New York's taxes were relatively moderate.

Based on this historical connection, it should be expected that the significant tax increases that began in 1997 (with the MSA) have led to a significant increase in illegal cigarette sales. Un-taxed cigarette sales include New Yorkers traveling to other states to purchase cigarettes; New Yorkers traveling to Native American Reservations to purchase cigarettes; and, cigarette smuggling networks that illegally bring untaxed cigarettes or cigarettes from lower-taxed areas to New York.

For instance, according to a March 2006 New York State Department of Health study:

Purchasing low price or untaxed cigarettes is common among smokers in New York. The most common source of cigarette tax avoidance in New York is purchasing from Indian reservations, especially in the western areas of the state. This behavior undermines the state's efforts to prevent and reduce tobacco use. Cigarette tax avoidance not only reduces smokers' incentives to quit smoking or reduce the amount they smoke, but it also results in a significant loss of state tax revenue that could be devoted to public health interventions aimed at reducing smoking. Lost revenue due to unpaid cigarette taxes also deprives the state of resources to address other public health issues.³⁸

An editorial written by New York Congressman Peter King similarly confirms the large smuggling problem created by high cigarette excise taxes; and the many sources of the contraband problem. Specifically, Representative King noted that:

...as cigarette taxes have risen—in New York, for example, taxes have increased by more than \$3.00 per pack in the last decade—store owners often bypass the wholesaler, acquiring and selling counterfeit-stamped cigarettes. This allows the smuggler and retailer to sell at substantial discounts—and still profit thanks to the margin created by unpaid taxes...

The result of all this is that governments lose badly needed revenue. For example, in New York State, where an estimated 26 million packs of cigarettes are sold each month, the state Department of Health estimates that Albany loses \$55 million-\$99 million per month in uncollected cigarette taxes. That's \$660 million-\$1.2 billion per year.

Nationwide, the annual loss is estimated at \$5 billion at the state level, and a further \$3.8 billion loss at the federal level.³⁹

A more recent study by Kurti et. al. (2012) examined the pervasiveness of illegal cigarettes in a lower-income area of New York City (South Bronx) finding:

... that 76.2 percent of cigarette packs collected avoided the combined New York City and State tax. More specifically, 57.9 percent were untaxed (counterfeit or bearing no tax stamp), for 15.8 percent taxes were paid outside of New York City (including other states and New York State only). Only 19.4 percent of tax stamps collected indicated that New York City and New York State taxes were paid. 4.4 percent of the cigarette packs could not be analysed because the tax stamps were not discernible. The finding that the majority of cigarettes did not have a tax stamp or bore a counterfeit tax stamp suggests that these cigarettes were being bootlegged, most likely from Native American Reservations.⁴⁰

Given the profit potential created by New York's exceptionally high tax rates, the large numbers of untaxed cigarette sales that are estimated to occur in New York are not surprising. Being illegal, these activities can only be surmised, but these estimates illustrate that untaxed sales have been growing concurrent with the rising New York tax burden.

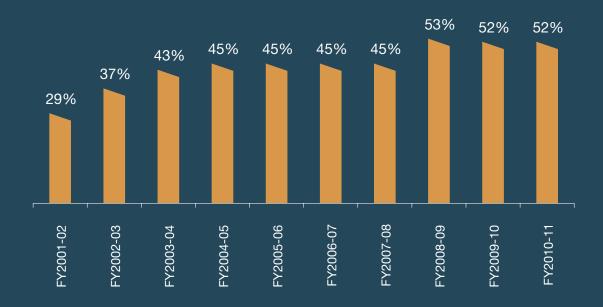
Lafaive and Nesbit (2010) updated an earlier study that estimated the total amount of smuggled cigarettes by state.⁴¹ With respect to New York, smuggled cigarettes represented 35.8 percent of total consumption in 2006 (prior to New York's highest cigarette excise tax rate in the nation) and New York had the 5th largest amount of smuggled cigarettes as a share of total consumption.⁴² By 2009, New York's estimated smuggling was 47.5 percent, or the 2nd largest amount of smuggled cigarettes as a share of total consumption.⁴³ Between 2006 and 2009, the state excise tax rate was raised from \$1.50 per pack to \$2.75 per pack.

The Lafaive and Nesbit estimates are also in line with other estimates of total smuggled cigarettes in New York. According to the *New York Post*, as of 2012 "The Sheriff's unit of the city Finance Department that conducted a sweep of 1,700 stores licensed to sell tobacco products found an astounding 42 percent either peddling untaxed cigarettes or using counterfeit stamps to duck the combined \$5.85 city-state tax...."⁴⁴ Consistent with Lafaive and Nesbit, the share of untaxed cigarettes was slightly less in 2006. According to the New York City Independent Budget Office (2007), "Although 27 percent of city smokers reported buying under-taxed tobacco, the state percentage is larger—with more than 34 percent paying less for their cigarettes some or all of the time."⁴⁵

A 2009 study by the New York Association of Convenience Stores (NYACS) estimated the total share of untaxed cigarettes in New York State between Fiscal Year 2001-02 through Fiscal Year 2008-09, which was updated for FY2010-11 by a separate firm in 2012. These results are reproduced as Figure 9. The NYACS studies confirm the previous findings—that untaxed cigarettes are a large and growing problem for New York.

Figure 9

Untaxed Sales Estimated Share of New York State Total Cigarette Demand FY2002 - FY2011⁴⁶



Lost Revenues for Law-Abiding Retailers and New York State

High cigarette taxes also impose large economic burdens on legitimate retailers in New York as well as the state government.

For instance, Farrelly et. al. (2012) estimate that the estimated lost revenue is tremendous:

The comparison between daily sales per smoker in the United States to self-reported daily cigarette consumption indicates that smokers underreport consumption by 32 percent (17.6 compared to 11.9 cigarettes per day).... This translates to adjusting self-reported cigarettes per day by 1.48 (1/(1–0.32)). Daily sales per smoker in New York are nearly half of what they are nationally (8.4 cigarettes per day). Self-reported daily consumption is 10.3 cigarettes per day before adjusting for underreporting and 15.2 cigarettes per day with the adjustment. In other words, on average, 6.8 cigarettes per smoker per day are purchased outside of New York's tax jurisdiction. This translates to 124 packs per smoker per year or a \$541 in lost tax revenue each year for every smoker. Given that the prevalence of smoking in New York is 17.6 percent in 2010, which translates to 2.65 million smokers, the total lost revenue is \$1.4 billion per year. 47

For perspective, total 2010 tax collections in New York was \$63.8 billion.⁴⁸ In other words, the lost cigarette revenues in 2010 were equal to 2.2 percent of total New York tax revenues for that year. This loss is not a one-time event either. These losses occur each and every year.

A New York Association of Convenience Stores (NYACS) study found that if not for cigarette sales in the illegal market, cigarette retailing could be contributing nearly 13 thousand jobs, almost \$500 million in wages, and \$1.1 billion toward New York's economy—double its current contribution. ⁴⁹ A New York State Department of Health study found that "57 percent of smokers in New York purchased cigarettes at least once from any low-tax or untaxed source, while 37 percent purchased low-tax or untaxed cigarettes regularly…"⁵⁰

Beyond the impact from lost revenues to the government, and increased revenues to criminal and terrorist organizations, counterfeit cigarettes also create additional health risks. According to an article in the *Richmond Times Dispatch*, "The ATF [Bureau of Alcohol, Tobacco, Firearms and Explosives] says the sale of counterfeit cigarettes is a growing problem. Illegally imported cigarettes can contain ingredients that can make them even more harmful to health than genuine cigarettes."⁵¹

Adverse Impact on Low-income Smokers

The adverse economic impact is not contained just to retailers or the government. A *New York Times* article reported that "Low-income smokers in New York spend 25 percent of their income on cigarettes, according to a new study, which led advocates for smokers' rights to say it proved high taxes were regressive and ineffective."⁵²

Farrelly et. al. (2012) concurs arguing that:

In 2010–2011, smokers nationally spent 8.8 percent of their household income on cigarettes, whereas smokers in New York spend 12.0 percent. This difference varies markedly by income level, especially in New York. New York smokers in the lowest income category spent roughly one-fifth (23.6 percent) of their household income on cigarettes, compared to 14.2 percent nationally for smokers with comparable income. The middle-income group spent 5.4 percent of their income on cigarettes in New York and 4.3 percent nationally. Smokers in the highest income group spent 2.2 percent of their income on cigarettes in New York and 2.0 percent nationally....

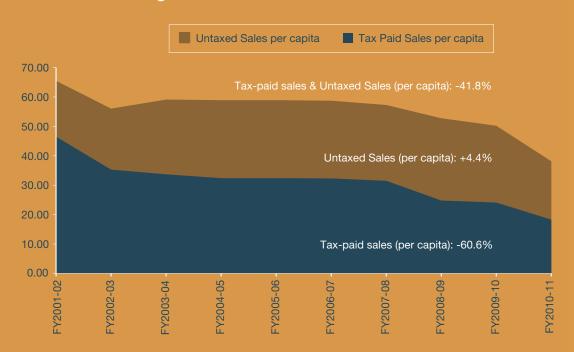
The key finding of this study is that cigarette excise taxes impose a significant financial burden on low-income smokers in New York State.⁵³

TAX-PAID SALES VERSUS TOTAL CIGARETTE CONSUMPTION

We estimated the total taxed plus untaxed per capita consumption over time to examine the impact that New York's smoking policies have had on total cigarette consumption. The different estimates of untaxed sales provide different values for demand—but the overall patterns are the same. Per capita tax-paid sales have declined dramatically in tandem with the excise tax increases and more restrictive smoking regulations. Accounting for per capita untaxed cigarette sales changes this story—total consumption has fallen significantly less than expected in response to New York's restrictive smoking policies. Figure 10 illustrates this trend using the NYACS estimated untaxed sales percentage (with the latest estimates being for FY2010-11) and the Tax Burden on Tobacco per capita tax paid sales data between FY 2001-02 through FY 2010-11.

Figure 10

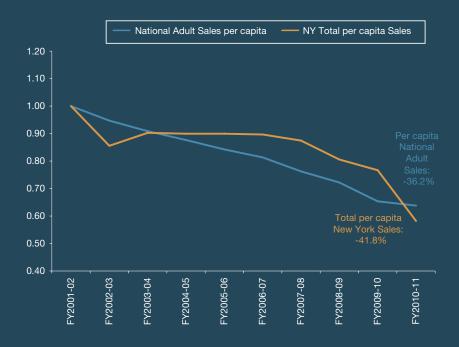
New York Tax Paid Sales and Estimated Untaxed Sales
FY 2001-02 through FY 2010-11⁵⁵



Based on data from the Tax Burden on Tobacco, national adult cigarette sales per capita declined 36.2 percent between FY2001-02 and FY2010-11, while in New York, per capita tax-paid sales have declined a much larger 60.6 percent. However, including the estimated untaxed sales per capita we find that total cigarette consumption per capita in New York declined 41.8 percent – much closer to the national average. Figure 11 displays this visually. As illustrated in Figure 11, New York's 41.8 percent decline in total per capita cigarette consumption is slightly below than the decline in national adult per capita sales over the same time period (a decline of 36.2 percent).

Figure 11

New York Tax Paid Sales Per Capita plus Estimated Untaxed Sales Per Capita Compared to National Adult Per Capita Sales FY 2001-02 through FY 2010-11 (scaled to 1.00 as of FY2001-02)



WHAT ABOUT ANTI-SMOKING EXPENDITURES?

New York's expenditure levels on tobacco control were significantly reduced in FY 2008-09. One possible explanation for New York's inability to generate a significantly steeper decline in smoking incidence and cigarette sales is this decline in anti-tobacco expenditures by the state. According to RTI International:

From fiscal year (FY) 2008–2009 to FY 2011–2012, the New York Tobacco Control Program's (NY TCP's) budget was reduced more than 50 percent, from \$84 million to \$41.4 million. ⁵⁶

The decline in tobacco funding is consistent with the American Lung Association's review of smoking policy, which gave New York an "F" for tobacco spending.⁵⁷

However, the reduction in smoking incidence in New York did not outperform the nation during the period when anti-tobacco spending was higher, and Figure 11 even suggests that smoking may have declined faster that the national average from 2008 to 2011, i.e. during the period when anti-tobacco expenditures were reduced. New York's similar decline in smoking incidence compared to other states with significantly lower taxes both during the time when its anti-tobacco spending was higher and when its anti-tobacco spending was lower raises doubts regarding the decline in anti-tobacco spending as a central cause of New York's smoking incidence performance.

CONCLUSION: NEW YORK'S SMOKING POLICIES ARE NOT A TOBACCO CONTROL SUCCESS STORY

As illustrated above, New York has implemented the most burdensome total tax levels along with significant smoking restrictions compared with other U.S. states. Yet, despite these policies New York is not a top performer in terms of reducing smoking.

New York's smoking rate declines are in line with the rest of the country, even compared with several low tax states. New York's very restrictive smoking bans yield no greater results than any other states with varying degrees of smoking restrictions. Further, New York has driven many smokers to illicit cigarettes, which creates a sizable and costly burden on New York's law enforcement. When comparing New York to other more moderately taxed states with equal or lesser restrictions, the question arises: "Should we create the social distortions and pay for higher government enforcement costs to achieve the same results as those states with lower taxes and restrictions?"

Others should be wary of the New York example. The New York case study provides reason to reconsider the wisdom of implementing overly burdensome taxes and regulations on cigarettes, arguing instead for a more reasonable or incremental approach to cigarette policy.

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