

A MACKINAC CENTER REPORT

Cigarette Taxes and Smuggling

**A STATISTICAL ANALYSIS
AND HISTORICAL REVIEW**

BY MICHAEL LAFAIVE, PATRICK FLEENOR, TODD NESBIT, PH.D.



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The Mackinac Center for Public Policy

Cigarette Taxes and Smuggling: A Statistical Analysis and Historical Review

By Michael LaFaive
Patrick Fleenor
Todd Nesbit, Ph.D.

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Executive Summary

States usually cite two major reasons for hiking their cigarette taxes: to decrease smoking, and to increase state tax revenue. Although these two goals can conflict, the “inelastic” nature of the cigarette market often allows policymakers to achieve both aims at once, with modest smoking reductions accompanying net increases in tax revenue.

This outcome may become increasingly difficult to achieve, however. Many states have raised their cigarette taxes significantly in recent years. These increases have likely furthered the growth of two types of cigarette smuggling: “casual” smuggling, in which individual consumers save money by buying their cigarettes in low-tax states or countries, and “commercial” smuggling, in which larger-scale operators buy cigarettes in bulk in a low-tax area and sell them tax-free in high-tax areas. This smuggling undermines both the revenue and health goals of higher cigarette taxes, while producing unintended consequences for individual states and American society as a whole.

In this study, the authors consider cigarette smuggling from two angles. First, they employ a statistical model to estimate the degree to which cigarette smuggling occurs in 47 of the 48 contiguous U.S. states. Second, they review the historical experiences of three states — Michigan, New Jersey and California — known to have problems with cigarette smuggling.

The authors’ statistical model compares legal, per-capita sales of cigarettes from 1990 through 2006 with survey data from the Centers for Disease Control and Prevention on the percentage of smokers in each state. Apparent discrepancies between legal sales and smoking rates — for instance, relatively low sales in a heavy smoking state — are used to estimate smuggling import and export rates between states, including any imports from, or exports to, Canada and Mexico. The model also distinguishes between casual and commercial smuggling.

From 1990 to 2006, the authors estimate that the states with the top five average smuggling import rates as a percentage of their total estimated in-state cigarette consumption, including both legally and illegally purchased cigarettes, were California (24.5 percent of the state’s total cigarette consumption), New York (20.9 percent), Arizona (20.6 percent), Washington state (20.1 percent) and Michigan (16.0 percent). Commercial smuggling import rates were highest in New Jersey (13.8 percent), Massachusetts (12.7 percent) and Rhode Island (12.7 percent). Casual smuggling import rates were highest in New York (9.9 percent), Washington (8.9 percent) and Michigan (6.0 percent).

The authors estimate that the states with the highest average smuggling export rates from 1990 to 2006 (excluding North Carolina)* were Delaware, Virginia and New Hampshire, where the volumes of the smuggling export markets were equal

* For a variety of reasons, North Carolina was assumed to be a major source of commercially smuggled cigarettes and excluded from the model.

to 29.4 percent, 20.8 percent and 17.2 percent respectively of each state's total estimated in-state cigarette consumption.* Delaware's high export rate is driven by an estimated casual smuggling volume equal to 34.8 percent of the state's estimated total cigarette consumption, a figure that is partially offset by an estimated commercial smuggling import rate of 5.0 percent. Mexico is also estimated to have played a significant role as a source of smuggled cigarettes to California, Texas, New Mexico and Arizona, exporting quantities that represented 8 percent to 10 percent of each state's estimated total cigarette consumption.

The authors' 2006 smuggling estimates were much higher, with rapid cigarette tax increases since 2001 fueling greater tax-induced smuggling activity. In 2006, the states with the highest estimated cigarette smuggling import rates were Rhode Island (45.7 percent), New Mexico (42.4 percent)[†] and the state of Washington (42.3 percent). All three states have raised their cigarette taxes significantly since 2003. The authors estimate that in 2006, no state had a higher export rate than Delaware, where outbound cigarette smuggling — fueled by casual smuggling — reached 82.8 percent of the state's estimated in-state cigarette consumption. (State smuggling estimates appear in Graphic 6 and Graphic 7.)

The authors' review of Michigan's, New Jersey's and California's cigarette smuggling experiences suggest that cigarette smugglers can realize large profits: tens of thousands of dollars for a single vanload of cigarettes, and hundreds of thousands of dollars for a single truckload. These sums represent a loss in estimated tax revenues to a state's treasury, but they have produced other unintended consequences, including a variety of crimes:

- financing a terrorist organization;
- thefts of untaxed cigarettes, including truck hijackings;
- thefts of state tax stamps;
- counterfeiting of tax stamps;[‡]
- property damage;
- counterfeiting of name-brand cigarettes, which are replaced with adulterated products, including counterfeit cigarettes from China; and
- violence against residents and police officers.

* Note that in an "export" state, the authors did not count exported cigarettes as part of the state's estimated total consumption of cigarettes, since the exported cigarettes are consumed outside the state. The export rate, therefore, simply represents a ratio between the exported cigarettes and the in-state consumption of cigarettes.

† The authors estimate that cigarettes smuggled from Mexico accounted for 18.3 percent of New Mexico's total cigarette consumption in 2006.

‡ Most states require all packs of cigarettes to carry a state-authorized stamp indicating that state cigarette taxes have been paid.

These societal costs are frequently borne by innocent people. This, together with the authors' cigarette smuggling estimates, suggests that state policymakers should reassess the value of cigarette taxes as a revenue and public health tool. States with high cigarette taxes, for instance, may want to consider reducing those taxes to reduce the smuggling incentive and the attendant ancillary crime. States with lower cigarette tax rates should be cautious about increasing the taxes, especially with an apparent growth in international smuggling. State policymakers should also recall that cigarette taxes are regressive, and that cigarette tax revenues are best spent on programs that mitigate the cost of smoking, not on general programs that would be more properly financed by the general taxpayer.

Introduction

Proponents of high state tobacco taxes point to increased prices as a way to reduce smoking and improve health. After all, they argue, if the price of tobacco products rises as a result of higher taxes, the sales of tobacco products will fall.

Graphic 1: A Sign Near the Michigan-Indiana Border



Source: Mackinac Center for Public Policy

In general, they are right: There is evidence that some people “kick the habit” because of high cigarette prices.¹ Research shows, however, that high state cigarette taxes can have other effects as well.

One of these is “casual” interstate cigarette smuggling, in which a single smoker crosses a state border to purchase and carry home relatively small quantities of cigarettes subject to the adjacent state’s lower tobacco taxes. Although this cross-border shopping is usually illegal, it allows smokers to continue their habit without bearing the burden of a high state tobacco tax. Moreover, casual smuggling is relatively easy for many consumers. In Michigan, counties bordering another state or country include 28.3 percent of the state’s population; in California, 21.8 percent; and in New Jersey, a staggering 61.8 percent.* A study published by Michael Lovenheim in the March 2008 *National Tax Journal* finds, “[B]etween 13 and 25 percent of [U.S.] consumers purchase cigarettes in border localities,” and “[C]ross-border smuggling confounds many of the potential health and revenue gains from cigarette taxation.”² He is not the only scholar to advance this thesis.

A more troubling consequence of high state tobacco taxes is large-scale, organized interstate smuggling. Unlike casual smuggling, which usually does not involve ancillary crime, this commercial smuggling deals in large quantities of cigarettes and may include stealing or counterfeiting state tax stamps to aid in the

* Author calculations and “County Population Estimates,” United States Bureau of the Census, <http://www.census.gov/popest/counties/CO-EST2007-01.html> (accessed September 21, 2008). The Michigan and California calculations include counties bordering not just U.S. states, but also Canada and Mexico. The New Jersey calculations include counties connected by a bridge or tunnel with the state of New York. These bridges and the adjoining counties were identified using maps at Google Earth.

1 Frank J. Chaloupka, Teh-wei Hu, Kenneth E. Warner, Rowena Jacobs, and Ayda Yurekli, “The Taxation of Tobacco Products,” *Tobacco Control in Developing Countries*, ed. Prabhath Jha and Frank Chaloupka (City, State.: Oxford Medical Publications, 2000); *Taking Action to Reduce Tobacco Use*, National Cancer Policy Board (National Academy Press, Washington, DC: 1998), (http://www.nap.edu/openbook.php?record_id=6060&page=R1); U.S. Department of Health and Human Services. *Reducing Tobacco Use: A Report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2000 (http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2000/#full).

2 Michael F. Lovenheim, “How Far to the Border?: The Extent and Impact of Cross-Border Casual Cigarette Smuggling,” *National Tax Journal* LXI, no. 1 (March 2008): 1.

distribution of the illegally imported product.* The research performed for this study suggests that commercial smuggling accounts for a significant percentage of cigarette sales.

Like casual smuggling, then, commercial smuggling reduces the expected health benefits of higher state cigarette taxes. Unlike casual smuggling, however, commercial smuggling can have a direct and negative effect on residents' health by increasing the risk of violent crime.

Higher state cigarette taxes can have a final consequence, though it is difficult to quantify: smokers substituting cheaper “roll-your-own” cigarettes for commercial ones.³ This “hand-rolled tobacco” may be smoked with or without a filter, thereby regulating the amount of nicotine according to the smoker's preference. These alternative products are usually legal, but obviously undermine the potential health benefits of higher tobacco taxes.

Such cigarette tax avoidance and evasion also affect a second goal cited by proponents of high state tobacco taxes: tapping a reliable source of tax revenue. Such revenue is reduced from what it might be by cigarette substitution and by casual and commercial smuggling.

Note that policymakers' goals in raising cigarette taxes would seem to be in conflict with each other. Reductions in smoking may improve health, but they reduce sales, and therefore tax revenues, from what they might otherwise be.

But this tension is resolved in part by the nature of the cigarette market. In economic terms, tobacco products are “inelastic,” meaning that people's consumption of tobacco is relatively insensitive to increases in the price of the product. A review of the economic literature indicates that a 10 percent increase in the price of tobacco generally leads to just a 4 percent decrease in the demand for tobacco.[†]⁴ Hence, policymakers can usually raise tobacco taxes without producing such a precipitous drop in the sales of cigarettes that overall tobacco tax revenue declines.[‡] In effect, lawmakers are often able to hike cigarette taxes and achieve both of their goals at once — smoking declines, while tax revenue increases.

* As discussed later, a state will typically require all cigarettes sold within its borders to display a state tax stamp. The stamp, available only from the state government, indicates that the state tax on the cigarettes has been paid and that the cigarettes can be legally bought and sold. Bootlegged cigarettes cannot display this stamp and therefore cannot be used in legal commerce, but they may nevertheless be attractive to retailers and consumers when their price is significantly lower due to the absence of a high state tax in the price. We are careful in the text to distinguish between casual and commercial smuggling wherever necessary; we sometimes refer to commercial smuggling as “bootlegging” or “large-scale” smuggling.

† We should add that while the overall demand for cigarettes is highly inelastic, it is not inelastic for all consumers. Smokers are much more responsive to price along borders with other states, other nations and other jurisdictions (such as military bases and Indian reservations) where tax differentials exist. These smokers have easy access to low-cost substitutes for the high-priced cigarettes they would purchase legally in-state, and hence the demand for cigarettes is more elastic near these borders.

‡ To appreciate the contrast between tobacco and elastic goods, consider the outcome if policymakers placed a heavy tax on green peppers. The subsequent demand for green peppers would plummet as people used red peppers, yellow peppers or other vegetables in their cooking — or simply ate fewer vegetables altogether. In this case, the decrease in demand for green peppers would likely be so high as to put the actual tax revenue significantly below the revenue that might have been expected when the tax was levied. If the tax on green peppers were raised again to make up the shortfall, the demand for the item might drop enough that the total revenue from the tax might decline, rather than rise, despite the higher tax rate.

3 HM Revenue & Customs (HMRC) Departmental Report: Integrating and Growing Stronger, Spring 2007, 39, http://customs.hmrc.gov.uk/channelsPortalWebApp/channelsPortalWebApp.portal?_nfpb=true&_pageLabel=pageAboutUs_ShowContent&propertyType=document&resetCT=true&id=HMCE_PROD1_027505 (accessed Sept 16, 2008), 39.

4 Chaloupka, Hu, Warner, Jacobs, and Yurekli, “The Taxation of Tobacco Products,” 237.

Nevertheless, the state of New Jersey recently witnessed a revenue decline after a cigarette tax increase — in this case, in the year following a fiscal 2007 tax hike from \$2.40 per pack to \$2.575 per pack.⁵ Newly available fiscal 2008 data indicate that the net decline has occurred for the second year in a row.* While some of this decline may be due to people quitting cigarettes, some is probably due to increased consumption of smuggled tobacco. In nearby Virginia, cigarette taxes are only 30 cents per pack,⁶ making casual smuggling attractive to New Jersey smokers, and as we will detail later, large-scale bootlegging probably plays a role too.

Much has been written about tobacco products from the perspective of a person's individual health and the cost of providing Medicaid-related health care to tobacco users. This field of research has been both valuable and necessary. There has been, however, a relative dearth of widely disseminated research discussing the consequences of cigarette taxation.

This study attempts to fill that void in two ways. The first is a historical perspective on state tobacco taxation, cigarette consumption and cross-border smuggling, particularly in Michigan, California and New Jersey. All three states are populous and vulnerable to cigarette tax evasion due to their location and policies. In discussing these states, we recount numerous — and often fascinating — instances of cross-border smuggling to help demonstrate the nature and the scope of the difficulty faced by high-tobacco-tax states.

The second element of this study is a new econometric analysis that uses recent data to estimate the degree of casual and large-scale smuggling activities in each of 47 contiguous United States.[†] The results of this economic model are statistically robust and generally consistent with the findings of other researchers. The general reader should not recoil from this discussion; we have rendered the findings in reasonably plain English and placed the technical work in an appendix. As with the cigarette tax history we recount, the results of the econometric analysis suggest certain limitations on policymakers' efforts to improve public health and maintain a reliable revenue stream through tobacco taxation policy.

Statistical Analysis

Trends in the Global Tobacco Market

According to the American Cancer Society, more than 5.6 trillion⁷ cigarettes were consumed worldwide in 2002, and this figure is expected to grow to 6.3 trillion in 2010.⁸ This represents relatively slow growth, notes ACS medical anthropologist and epidemiologist Dr. Omar Shafey, and the increase is fueled primarily by the growth of the world's population, not an increase in the popularity of smoking.⁹ In per-capita terms, worldwide consumption of cigarettes has declined since 1986 at an average rate of about 1.2 percent annually.¹⁰

* Greg Edwards, Center for Policy Research of New Jersey, telephone interview with Michael LaFaive, September 26, 2008. Citing official state statistics, Edwards reports that cigarette tax revenues dropped from \$765.1 million to \$763.4 million from fiscal 2007 through fiscal 2008. This prolonged revenue decline challenges the common view that tax revenues may sometimes drop immediately following a cigarette tax increase, but will increase again after smokers become accustomed to the new price.

† Of the 48 contiguous U.S. states, only North Carolina is omitted, due to the unique role it plays in our statistical model.

5 William Orzechowski and Robert Walker, *The Tax Burden on Tobacco*, Historical Compilation 42 (2007): 10.

6 Ibid., v.

7 Dr. Judith Mackay, Dr. Michael Eriksen and Dr. Omar Shafey, *The Tobacco Atlas*, Second Edition, (Atlanta, GA: American Cancer Society, 2006), 32.

8 Dr. Omar Shafey (medical anthropologist and epidemiologist, American Cancer Society), telephone interview with Michael LaFaive, September 10, 2008.

9 Shafey, interview.

10 Emmanuel G. Guindon and David Boisclair, *Past, Current and Future Trends in Tobacco Use*, Health, Nutrition and Population Discussion Paper, Economics of Tobacco Control Paper No. 6, (The World Bank, 2003), 9.

Concern over the popularity of tobacco products* and their attendant health consequences has made them a popular target for taxation around the world. Of the 152 countries from which information is available, taxes as a percentage of product price range from 80 percent down to almost 0 percent.¹¹

The tax-related price differentials between tobacco products in different nations induces cross-border bootlegging and casual smuggling in much the same way it does between American states, although some scholars report that smuggling rates can also be influenced by the degree of corruption tolerated in and among nations.¹² In a widely cited paper, economists David Merriman, Ayda Yurekli and Frank J. Chaloupka estimate that 6 percent to 8.5 percent of all cigarette consumption worldwide is a result of smuggling,¹³ although the figure is pegged at 10.7 percent by the Framework Convention Alliance, an international collection of groups that developed a tobacco control treaty for the World Health Organization.¹⁴ Merriman, Yurekli and Chaloupka also estimate that in 1995, consumption of smuggled cigarettes in some nations — Cambodia, Bangladesh and Latvia, for instance — exceeded 30 percent.¹⁵

On Oct. 20, 2008, the Center for Public Integrity released an installment in a series entitled “Tobacco Underground: The Booming Underground Trade in Smuggled Tobacco.” The installment, “Made to be Smuggled,” finds that \$1 billion in “Jin Ling” contraband cigarettes are flooding Europe and that the Jin Ling brand is the first brand of cigarettes designed and produced expressly for smuggling. The brand already rivals Marlboro as a favorite among contraband traffickers and their customers, according to the article.¹⁶

High smuggling rates are not limited to developing countries or nations with high levels of reported corruption. One 1995 study by L. Joossens and M. Raw, published in the *British Medical Journal*, reported that up to 85 percent of the cigarettes purchased in Luxembourg were not consumed there, suggesting massive cross-border shopping and illegal smuggling.¹⁷ And according to Her Majesty’s Revenue & Customs annual report for 2005-2006, an estimated 10 percent to 19 percent of all cigarettes consumed in the United Kingdom in fiscal 2005 were bought on the illegal market. The percentage was about 21 percent in 2000.¹⁸

* Cigarettes accounted for more than 96 percent of the total value of tobacco products sold worldwide. See *The Tobacco Atlas*, Second Edition, 32.

11 World Health Organization, *WHO Report on the Global Tobacco Epidemic 2008: The MPOWER Package*, (Geneva: World Health Organization, 2008), 54, http://www.who.int/tobacco/mpower/mpower_report_full_2008.pdf (accessed Sept. 25, 2008).

12 Luke Joossens, Frank J. Chaloupka, David Merriman, and Ayda Yurekli, *Tobacco Control in Developing Countries*, ed., Prabhat Jha and Frank Chaloupka, (Geneva: Oxford Medical Publications, 2000), 393.

13 David Merriman, Ayda Yurekli and Frank J. Chaloupka, “How big is the worldwide cigarette smuggling problem?” *Tobacco Control in Developing Countries*, ed., Prabhat Jha and Frank Chaloupka, (Geneva: Oxford Medical Publications, 2000), 365.

14 Framework Convention Alliance, “The Illicit Trade in Tobacco Products: How International Cooperation Can Save Lives and Billions of Dollars,” *Factsheet*, (Geneva: Framework Convention Alliance, February 2008), <http://www.ftc.org/dmdocuments/fca-2008-inb-illicit-trade-inb1-factsheet-how-cooperation-can-save-lives-en.pdf> (accessed September 20, 2008).

15 “How big is the worldwide cigarette smuggling problem?” 373.

16 Stefan Candea, Duncan Campbell, Vlad Lavrov, Roman Shleynov, “Made to be Smuggled: Russian Contraband Cigarettes ‘Flooding’ EU,” (Center for Public Integrity, International Consortium of Investigative Journalists), Oct. 19, 2008. <http://www.publicintegrity.org/investigations/tobacco/articles/entry/763> (accessed October 22, 2008).

17 L. Joossens and M. Raw, “Smuggling and Cross-border trade of tobacco in Europe,” *British Medical Journal* 3, (1995): 1393-7 (<http://www.bmj.com/cgi/content/full/310/6991/1393>).

18 HMRC Annual Report 2005-06 and Autumn Performance Report, 2006, 30, http://customs.hmrc.gov.uk/channelsPortalWebApp/channelsPortalWebApp.portal?_nfpb=true&_pageLabel=pageLibrary_ShowContent&id=HMCE_PR OD1_026500&propertyType=document (accessed September 16, 2008), 30.

So widespread is illicit trafficking in tobacco in the United Kingdom that even a famous soccer figure was arrested for cigarette smuggling on Sept. 2 of this year. Kostadin Hadzhiivanov, a Bulgarian who was president of the football club Belasitsa, was arrested in Greece for cigarette smuggling activities in the United Kingdom.^{*},¹⁹

Authorities in England have noticed an uptick in the degree of smuggled rolling tobacco. It appears that a significant percentage of the population has begun substituting smuggled for legal hand-rolled cigarette tobacco, even though legal hand-rolled cigarette tobacco is typically cheaper than legal cigarettes. In a spring 2007 report, HM Revenue & Customs Department officials note that smuggled hand-rolled tobacco accounts for more than 50 percent of all hand-rolled tobacco smoked in the United Kingdom.[†],²⁰

As we discuss below, most smuggling in the United States occurs across state borders, with smugglers attempting to profit from differences in the cigarette taxes levied by each state. Some of the illicit market, however, involves cigarettes intended for export to other countries. These can be a goldmine for a smuggler because they are not subject to federal, state or local excise taxes. Over the years, schemes to divert cigarettes intended for export to illicit domestic consumption have been uncovered in Washington, California, Texas, New York and New Jersey.²¹

U.S. Cigarette Taxes

Tobacco taxes are classified as “excise” taxes, which are sales taxes imposed on different commodities at different rates, such as specific taxes on cigarettes, alcohol or fuel.[‡] A general sales tax, in contrast, is applied uniformly across a wide range of goods.

Cigarette excise taxes in the United States are levied by several levels of government. The federal government imposes a nationwide cigarette excise tax of 39 cents per pack. Some municipalities, such as New York City, levy a local cigarette excise tax. In general, however, the variation in the total tax imposed on the sale of cigarettes in the United States is primarily due to differences in cigarette excise taxes imposed by each state government. These state excise taxes are shown in Graphic 2.

^{*} Along with the usual interdiction by law enforcement, the United Kingdom has also been attempting simple persuasion. A commercial that has run in the U.K. to discourage illicit commerce in tobacco can be viewed at <http://www.youtube.com/watch?v=vfnTXlwgvtw>.

[†] The same report also mentions a concern about the percentage of counterfeit cigarettes that are smuggled into the United Kingdom, saying, “The proportion of illicit cigarettes seized that are proven to be counterfeit has increased to 51% (over 1 billion cigarettes) in 2005-06 ...” HMRC Departmental Report: Integrating and Growing Stronger, Spring 2007. http://customs.hmrc.gov.uk/channelsPortalWebApp/channelsPortalWebApp.portal?_nfpb=true&_pageLabel=pageAboutUs_ShowContent&propertyType=document&resetCT=true&id=HMCE_PROD1_027505 (accessed September 16, 2008), 39. Counterfeit cigarettes are packaged to look like mainstream name brands, but they typically cut costs by using fillers, such as sawdust, to supplement the tobacco.

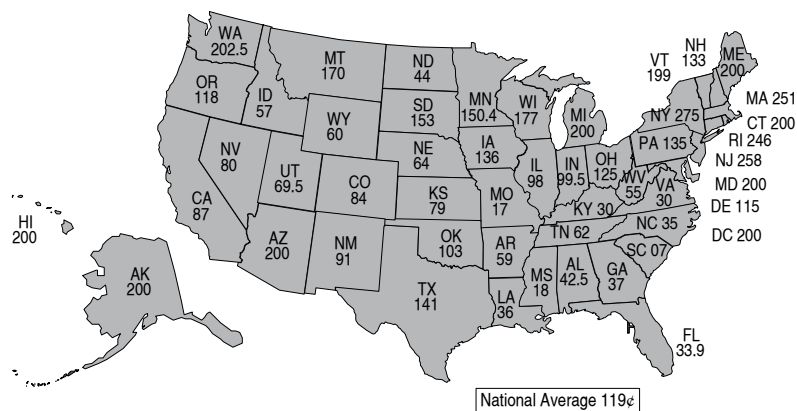
[‡] Black’s Law Dictionary defines an excise tax as “a tax imposed on the manufacture, sale, or use of goods (such as a cigarette tax), or on an occupation or activity (such as a license tax or attorney occupation fee).” Black’s Law Dictionary, 8th edition, Garner, A. Bryan, Editor in Chief, Thomson West, 1999, 605.

¹⁹ Sophia News Agency, “Bulgarian FC President Arrested in Greece over Cigarette Smuggling in UK,” Sophia News Agency, Bulgaria, http://www.novinite.com/view_news.php?id=96699 (accessed September 16, 2008.)

²⁰ HMRC Departmental Report: Integrating and Growing Stronger, Spring 2007, 39, http://customs.hmrc.gov.uk/channelsPortalWebApp/channelsPortalWebApp.portal?_nfpb=true&_pageLabel=pageAboutUs_ShowContent&propertyType=document&resetCT=true&id=HMCE_PROD1_027505 (accessed September 16, 2008), 39.

²¹ Lindquist Avey, Macdonald Baskerville, Forensic Financial Investigations, *Cigarette Smuggling in the State of Michigan*, August 15, 1994.

Graphic 2: Cigarette Excise Taxes for Each U.S. State in Cents per Pack



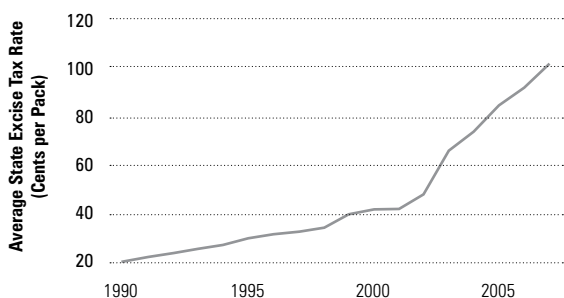
Source: Campaign for Tobacco Free Kids.

The lowest tax rate is South Carolina’s at 7 cents per pack. Michigan is tied for sixth highest in the nation at \$2.00 per pack, and New Jersey is second in the nation with a tax of \$2.575 per pack.

Over the past few decades, tobacco taxes have gone up dramatically. As we have already noted, this increase has probably played a role in the decline of smoking in America. Nevertheless, smoking has not fallen nearly as quickly as taxes have risen.

Graphic 3 shows the average state cigarette excise tax rate (including Washington, D.C.) in cents per pack from 1990 through 2007. From 1990 to 1998, the rise is steady, but begins to increase from 1998 through 2001 before taking off at a considerably higher rate in subsequent years.

Graphic 3: Average State Cigarette Excise Taxes in Cents per Pack, Fiscal 1990-2007



Source: Orzechowski and Walker, 2007,²² and authors’ calculations. Excise tax rates for all 50 states and Washington, D.C., were included in the computations. The average was calculated as the mean of the various excise taxes; the tax rates were not weighted to reflect state sales volume.

In the years immediately following 2001, many state governments had trouble balancing their budgets due to the Internet stock decline and the economic slow-down following the terrorist attacks of Sept. 11, 2001. Many state governments chose to increase cigarette taxes to generate new tax revenue, with the average increase from 2002 to 2003 being the most pronounced. Graphic 4 shows the cigarette excise tax for each state and Washington, D.C., for selected years.

²² *The Tax Burden on Tobacco*, 15-16.

Graphic 4: State Cigarette Excise Taxes in Cents per Pack for Selected Years

JURISDICTION	1990	1998	2001	2002	2003	2007
Alabama	16.5	16.5	16.5	16.5	16.5	42.5
Alaska	16	29	100	100	100	180
Arizona	15	58	58	58	118	200
Arkansas	21	31.5	31.5	34	59	59
California	35	37	87	87	87	87
Colorado	20	20	20	20	20	84
Connecticut	40	50	50	111	151	151
Delaware	14	24	24	24	24	55
District of Columbia	17	65	65	65	100	100
Florida	24	33.9	33.9	33.9	33.9	33.9
Georgia	12	12	12	12	12	37
Hawaii	33	80	100	100	130	160
Idaho	18	28	28	28	57	57
Illinois	20	44	58	58	98	98
Indiana	15.5	15.5	15.5	15.5	55.5	55.5
Iowa	31	36	36	36	36	136
Kansas	24	24	24	24	79	79
Kentucky	3	3	3	3	3	30
Louisiana	16	20	24	24	36	36
Maine	28	37	74	100	100	200
Maryland	13	36	66	100	100	100
Massachusetts	26	76	76	76	151	151
Michigan	25	75	75	75	125	200
Minnesota	38	48	48	48	48	149.3
Mississippi	18	18	18	18	18	18
Missouri	13	17	17	17	17	17
Montana	16	18	18	18	70	170
Nebraska	27	34	34	34	64	64
Nevada	20	35	35	35	35	80
New Hampshire	17	25	52	52	52	80
New Jersey	27	40	80	80	150	257.5
New Mexico	15	21	21	21	21	91
New York	33	56	111	150	150	150
North Carolina	2	5	5	5	5	35
North Dakota	27	44	44	44	44	44
Ohio	18	24	24	24	55	125
Oklahoma	23	23	23	23	23	103
Oregon	27	68	68	68	128	118
Pennsylvania	18	31	31	31	100	135
Rhode Island	27	61	71	132	132	246
South Carolina	7	7	7	7	7	7
South Dakota	23	33	33	33	53	153
Tennessee	13	13	13	13	20	20
Texas	26	41	41	41	41	141
Utah	23	26.5	51.5	69.5	69.5	69.5
Vermont	17	44	44	44	93	179
Virginia	2.5	2.5	2.5	2.5	2.5	30
Washington	34	82.5	82.5	142.5	142.5	202.5
West Virginia	17	17	17	17	55	55
Wisconsin	30	44	59	77	77	77
Wyoming	8	12	12	12	12	60
Average of excise taxes	20.6	34.2	42.0	48.2	66.2	102.1

Source: Orzechowski and Walker, 2007,⁹ and authors' calculations. Note that the 1998 tax rates listed for Massachusetts and Oregon took effect after the beginning of the fiscal year. Hawaii's tax was 40 percent of wholesale price until July 1, 1993.

23 Ibid.

Interstate Cigarette Smuggling

Yawning gaps in tax rates between states — especially neighboring states, such as Indiana and Michigan — can tempt people to smuggle. In economic terms, smugglers are engaged in arbitrage, attempting to capture the difference between state tax rates as profit. As long as the financial cost of the smuggling is relatively low, some people will perceive the net profit as sufficient to justify the risk of the illegal activity.

Interstate cigarette smuggling is not new. Graphic 5 shows a Michigan state policeman inspecting contraband cigarettes in 1951, when tax rates were a mere 3 cents per pack.

Graphic 5: Michigan State Police Inspecting Seized Cigarettes in 1951



Source: Archives of Michigan. Photo taken in 1951 at the Jonesville Police Post in Hillsdale County.

As cigarette taxes have risen in recent years, however, so has smuggling. A number of scholarly studies have attempted to measure the degree to which cigarettes are smuggled across state borders.

- In a May 2008 working paper entitled “Excise Tax Avoidance: The Case of State Cigarette Taxes,” Phillip DeCicca, Donald Kenkel and Feng Liu of Cornell University’s Department of Policy Analysis and Management use 2003 Tobacco Use Special Cessation Supplement survey data to estimate casual smuggling rates. The survey asks smokers about their cigarette tax avoidance behavior, and in reviewing the results, the authors find that in

Washington, D.C., and Maryland, 21.5 percent and 15.7 percent of smokers admit to making cross-border purchases, respectively. The figure was 2.4 percent for California, almost 12.3 percent for New Jersey and just over 6 percent in Michigan. The authors estimate the national norm to be about 5 percent of smokers, though they note that other scholars have arrived at both higher and lower figures.²⁴

- In March 2008 professor Michael Lovenheim of Stanford University published “How Far to the Border?: The Extent and Impact of Cross-Border Casual Cigarette Smuggling” in the *National Tax Journal* (a study mentioned in our introduction). Lovenheim estimates that 13 percent to 25 percent of consumers buy cigarettes in “border localities.” In other words, a significant number of smokers engage in casual cross-border smuggling.²⁵ Remember, casual cross-border smuggling is not legal for Michigan residents. Lovenheim’s study includes a state-by-state summation table that pegs the “Percent of Consumers Who Smuggle” at 31.0 percent in New Jersey, 0.01 percent in California and about 8.6 percent in Michigan.²⁶
- In 2004 economist Mark Stehr concluded in a study published in the *Journal of Health Economics* that “up to 85 percent of the tax paid sales response” of cigarette consumption is a result of tax avoidance, rather than an actual decline in smoking. Similarly, in 1995, economist R. Morris Coats’ study in the *National Tax Journal* concluded, “[A]bout four-fifths of the sales response to state cigarette taxes is due to cross-border sales.”*
- In “Taxing Choice: The Predatory Politics of Fiscal Discrimination,” economist Richard Vedder reviews an example of cigarette smuggling between Kentucky and Ohio. He and two colleagues estimate that in 1991 and 1992, 42.9 percent of Ohio residents living in the Cincinnati area, where state excise taxes were 18 cents per pack, purchased cigarettes in Kentucky, where taxes were only 3 cents per pack.²⁷

A New Estimate of Interstate Cigarette Smuggling Rates

Each of the studies mentioned above provides unique insight into the degree to which cigarettes are smuggled in the United States. Each employs different measurement techniques and arrives at different results. For instance, Michael Lovenheim’s paper uses Current Population Survey Tobacco Supplements data for metropolitan statistical areas in most years between 1992 and 2002, while DeCicca, Kenkel and Liu employ nationwide survey data from 2003.

In a new econometric analysis performed for this study, we have constructed a statistical model to estimate the degree of tax-induced smuggling, both casual and commercial, using state-level data from 1990 through 2006⁺ — a broad time series meant to ensure that numerous state cigarette tax hikes were part of the

* R. Morris Coats, “A Note on Estimating Cross-Border Effects of State Cigarette Taxes” *National Tax Journal*, December 1995, 573. University of Michigan economist Joel Slemrod cites Coats’ findings in his own 2007 paper, but points out the study does not consider “enforcement regimes” that may raise the cost of cross-border acquisition of cigarettes.

† Some municipalities, such as those in New Jersey, also levy cigarette taxes. These local taxes were not included, largely because there is no central source listing them.

24 Phillip DeCicca, Donald Kenkel, and Feng Liu, “Excise Tax Avoidance: The Case of State Cigarette Taxes,” (Washington, D.C.: Annual Association for Public Policy Analysis and Management, 2008), 48, 3.

25 *How Far to the Border*, 7.

26 *Ibid.*, 29.

27 Richard Vedder, “Bordering on Chaos, Fiscal Federalism and Excise Taxes,” *Taxing Choice: The Predatory Politics of Fiscal Discrimination*, ed. William F. Shughart II (New Brunswick, Conn.: Transaction Publishers, 1997), 280.

measurement. The peer-reviewed, two-part regression analysis is too complex to describe here in detail, and the technical discussion has been relegated to “Appendix A: The Econometric Analysis” (see Page 72). In general terms, however, the model compares legal, per-capita sales of cigarettes to survey data on the percentage of smokers in each state (the survey data comes from the “Behavioral Risk Factor Surveillance System” administered by the Centers for Disease Control and Prevention). Apparent discrepancies between sales and smoking rates — for instance, relatively low sales in a heavy smoking state — are used to estimate smuggling import and export rates for each state. Some of the variables employed in the model were county populations along state borders, average differences between state tax rates and a simple indicator variable to capture the possibility that Indian reservations might serve as a source of contraband cigarettes.*

The model produced results for 47 of the 48 contiguous United States from 1990 through 2006. We excluded Hawaii and Alaska because they did not share a border with the other states, and modeling their cigarette consumption and illicit trade would necessarily involve very different considerations from the major variables for the other 48 states. We also excluded North Carolina from the results because the state plays a central role in the model as a major source of illicitly trafficked cigarettes. Treating North Carolina as a central source is common in academic models of cigarette smuggling. The only result the model could generate for North Carolina would be meaningless.†

The model generated casual and commercial smuggling rates for each of the other 47 states. We define these casual and commercial rates as interstate rates exclu-

* Unlike cigarette smuggling involving Canada or Mexico, smuggling involving Indian reservations is not calculated separately in our model. Rather, smuggling from Indian reservations is included in figures for casual smuggling.

† The model compares each state’s cigarette tax rate to North Carolina’s. Since North Carolina’s tax differential with itself is automatically zero, the model would falsely imply that the state’s cigarette smuggling activity was zero.

In effect, the model assumes North Carolina to be the primary source of commercially smuggled cigarettes. Obviously, this assumption is not strictly correct; bootlegged cigarettes no doubt originate from other states as well. Kentucky and Virginia are sometimes mentioned as other sources of commercial smuggling.

Yet there are good reasons to make North Carolina, rather than other Southern tobacco states, central to the model. Historically, North Carolina has usually had the lowest state cigarette tax in the nation. Moreover, the state is one of only two that do not require a tax stamp when cigarettes are sold in-state. The absence of this stamp makes it easier to legally purchase cigarettes in North Carolina, ship them to other states and hide their point of origin — an advantage that legally purchased cigarettes from Kentucky and Virginia, all stamped, would lack. And although South Carolina, the other state that does not require a tax stamp, now has a lower cigarette tax rate than North Carolina, this development is recent. Given that the commercial cigarette smuggling industry has a long history in North Carolina, smugglers inevitably have established sources, methods and transportation routes that make business easier for them there. Re-establishing their business in South Carolina, at least in the short term, would add to their business transaction costs.

That said, a final reason for making just one state central to our smuggling model is purely technical: Assuming multiple states to be the sources would make the modeling impracticable. In effect, assuming North Carolina to be the primary source is a simplifying assumption — but as we have argued above, it is a reasonable assumption that should not be far from the truth. And in fact, the estimation results and the implications of this study are largely unchanged if Kentucky and Virginia are excluded from the sample as sources of commercially smuggled cigarettes.

sively — that is, they do not include casual or commercial smuggling from Canada or Mexico (smuggling to and from these two nations is calculated separately, with no distinction between casual and commercial). We constructed these smuggling rates to be positive when they involve a net export of smuggled cigarettes out of the state and negative when they involve a net import of smuggled cigarettes into the state. The rates themselves are percentages calculated by dividing the estimated number of smuggled cigarettes by the state's estimated total consumption of cigarettes (both legally and illegally purchased).*

The first output we examined from our model involves average casual and commercial smuggling rates for 47 of the 48 contiguous states from 1990 through 2006. We estimate that on average during that period, New Jersey, Massachusetts and Rhode Island had the highest commercial smuggling import rates in the nation at 13.8 percent, 12.7 percent and 12.7 percent respectively of each state's total cigarette consumption. Note that all three states lie on the East Coast with easy access to lower-tax states such as North Carolina.

Kentucky and Virginia were the only two states that we estimated had no net commercial smuggling imports from 1990 through 1996 (recall that we exclude North Carolina from the results). Indeed, we calculate that during this period, there were small net exports of commercially smuggled cigarettes from these states, though the rates were less than 1 percent of the state's total cigarette consumption in both cases.

From 1990 through 2006, the states with the highest annual rates of casually smuggled imports as a percentage of their estimated total cigarette consumption were New York (9.9 percent), Washington (8.9 percent) and Michigan (6.0 percent). At the opposite end of the smuggling spectrum were casual smuggling "export" states — that is, the states whose total cigarette consumption was lower than their observed sales due to casual smugglers from other states taking cigarettes back across state lines illegally. We estimate that Delaware experienced a tax-induced casual smuggling export rate of 34.8 percent of its total cigarette consumption — the highest average annual rate in the nation during that period — followed by Virginia at 22.0 percent and New Hampshire at 21.4 percent.

During this period, according to our model, only four states were destinations for smuggled cigarettes from Mexico: California (10.1 percent of the state's total consumption), Arizona (8.9 percent), New Mexico (8.2 percent) and Texas (8.1 percent). The states that may have exported cigarettes to Canada during this time period include Washington, New York, Michigan and several other Northern states, but the extent was small and not statistically significant.

When we total the average figures for the 47 states contained in the model, as well as any imports and exports from Canada and Mexico, the states with the top

* In our model, a state's estimated total cigarette consumption is equal to the observed legal sales minus the estimated smuggling, where the estimated smuggling is positive when smugglers export cigarettes from the state and negative when smugglers import cigarettes to the state. In the first case, the state's estimated total consumption of cigarettes is lower than the state's observed legal sales because cigarettes have been smuggled out of the state after purchase; in the second case, the state's estimated total consumption of cigarettes is higher than the state's observed legal sales because cigarettes have been smuggled into the state.

five overall smuggling import rates are California (24.5 percent), New York (20.9 percent), Arizona (20.6 percent), Washington (20.1 percent) and Michigan (16.0 percent). The states with the highest average smuggling export rates during this period were Delaware (29.4 of the state's consumption), Virginia (20.8 percent) and New Hampshire (17.2 percent).

Given the upward trend in cigarette taxes in recent years, we also estimated smuggling rates for 2006 alone. We estimate that in 2006, New Jersey, Maine and Massachusetts had the highest commercial smuggling import rates in the nation. New Jersey, which has a long history of cigarette smuggling problems, maintains a commercial smuggling import market equal to 30.1 percent of its total cigarette consumption, while the smuggling import rate for Maine is a close second at 30.0 percent. Massachusetts' estimated smuggling import rate is third at 25.4 percent of the state's total cigarette consumption. The top four commercial export states for which we have numbers during this time period (recall that North Carolina is excluded) are South Carolina, Missouri, Mississippi and Tennessee. Only South Carolina's export rate exceeded even 4 percent of the state's total consumption.

Our top estimated casual smuggling import rates in 2006 were Rhode Island at 22.4 percent of total state consumption; New York at 21.6 percent; and Montana at 18.8 percent. These are significant figures to be sure, but they pale in comparison to the top export state for casually smuggled cigarettes. Delaware tops out at almost 91.5 percent of the state's total cigarette consumption. This may seem counterintuitive: Delaware has middling excise taxes on cigarettes and no homegrown tobacco. Its high casual smuggling export market is probably due, however, to the state's being the smuggling equivalent of a stone's throw away from high-tax New Jersey and Maryland.*

In terms of international smuggling in 2006, our model suggests that Maine, Washington, New York and Michigan may have had small net smuggling exports of cigarettes to Canada, but the numbers are not statistically significant. In contrast, we estimate that cigarettes acquired in Mexico represented a large percentage of total cigarette consumption in four Southwestern states: New Mexico (18.3 percent), California (15.5 percent), Arizona (13.3 percent) and Texas (8.7 percent).

In estimates of overall smuggling rates for 2006, we calculate that Rhode Island (45.7 percent), New Mexico (42.4 percent) and the state of Washington (42.3 percent) had the highest smuggling import rates as a percent of the estimated total cigarette consumption. The states of New York and New Jersey are close behind, with estimated smuggling rates exceeding 40 percent of their total cigarette consumption.

Not surprisingly, given our estimates of Delaware's casual smuggling export rate, we calculated that in 2006, the state of Delaware possessed an illegal cigarette export market equal to 82.8 percent of its total cigarette consumption. We

* Despite the high net smuggling export rate for Delaware, the states of Maryland, New Jersey and Pennsylvania do not have large net import rates (see Graphic 7). Each of these states, however, also borders other states and regions (such as Washington, D.C.) that have high tax rates, creating some ongoing outflow of cigarettes that balances the inflow of cigarettes from Delaware. Thus, the estimated net smuggling numbers for Delaware and the states that surround it do not "cancel out" as might be expected absent consideration of other state smuggling flows.

believe Delaware had a net commercial smuggling *import* rate of 7.2 percent in 2006, suggesting that commercial smuggling is helping feed the heavy demands placed on Delaware's cigarette market by casual smugglers from other states. New Hampshire and Virginia also appear to have been the source of significant smuggling exports of cigarettes at 37.2 percent and 28.7 percent of their states' total cigarette consumption respectively.

Graphic 6: Estimated Tax-Induced Smuggling as a Percentage of Total Cigarette Consumption (Legal and Illegal), 1990-2006 Annual Averages

State	Per Adult Legal Sales				Total
		Commercial Smuggling (Interstate)	Casual Smuggling (Interstate)	Smuggling Involving Canada/Mexico	
AL	97.90	-2.91%	2.45%	0.00%	-0.37%
AR	102.85	-5.37%	1.41%	0.00%	-3.64%
AZ	69.77	-6.49%	-4.41%	-8.91%	-20.63%
CA	49.98	-7.36%	-5.92%	-10.08%	-24.51%
CO	76.43	-3.46%	-2.72%	0.00%	-5.92%
CT	71.69	-11.70%	4.47%	0.00%	-6.22%
DE	142.05	-5.04%	34.78%	0.00%	29.44%
FL	87.75	-4.65%	-2.97%	0.00%	-7.33%
GA	93.78	-1.71%	1.19%	0.00%	-0.47%
IA	90.55	-5.01%	-2.44%	0.00%	-7.15%
ID	74.15	-4.67%	3.97%	0.60%	0.09%
IL	75.68	-9.52%	0.52%	0.00%	-8.42%
IN	122.09	-3.45%	10.64%	0.00%	7.12%
KS	79.81	-5.03%	-3.96%	0.00%	-8.68%
KY	168.40	0.03%	4.98%	0.00%	4.71%
LA	98.35	-3.13%	-2.65%	0.00%	-5.52%
MA	66.66	-12.74%	1.75%	0.00%	-10.10%
MD	70.09	-9.01%	3.04%	0.00%	-5.33%
ME	92.27	-10.12%	2.32%	1.11%	-5.93%
MI	84.98	-11.57%	-6.01%	1.22%	-15.97%
MN	78.04	-6.84%	-5.40%	0.78%	-11.13%
MO	114.69	-2.06%	5.97%	0.00%	3.79%
MS	99.85	-2.33%	0.66%	0.00%	-1.55%
MT	79.19	-5.36%	-3.79%	0.65%	-8.17%
ND	75.03	-6.18%	-3.89%	0.74%	-8.96%
NE	79.72	-5.18%	-3.36%	0.00%	-8.24%
NH	150.79	-4.99%	21.44%	0.61%	17.22%
NJ	67.78	-13.80%	0.60%	0.00%	-12.32%
NM	57.98	-5.39%	-0.43%	-8.20%	-13.61%
NV	96.38	-7.55%	10.33%	0.00%	3.33%
NY	60.42	-12.42%	-9.88%	1.31%	-20.88%
OH	101.71	-4.63%	1.47%	0.00%	-2.89%
OK	101.07	-5.06%	1.59%	0.00%	-3.19%
OR	80.78	-7.79%	-5.68%	0.00%	-13.30%
PA	87.37	-8.23%	4.04%	0.00%	-3.61%
RI	82.20	-12.70%	1.01%	0.00%	-10.83%
SC	107.62	-0.22%	2.80%	0.00%	2.43%
SD	83.53	-4.93%	-0.78%	0.00%	-5.41%
TN	111.93	-1.48%	2.56%	0.00%	1.06%
TX	69.39	-5.68%	1.33%	-8.14%	-12.07%
UT	45.96	-6.20%	-4.52%	0.00%	-10.40%
VA	100.71	0.14%	22.01%	0.00%	20.81%
VT	98.52	-6.99%	9.58%	0.81%	3.94%
WA	57.91	-12.63%	-8.95%	1.32%	-20.08%
WI	84.42	-7.22%	-5.48%	0.00%	-12.45%
WV	109.15	-4.11%	6.96%	0.00%	2.93%
WY	98.41	-2.77%	9.59%	0.00%	6.66%

Notes: Estimates computed based on the regression results presented in columns 3 and 4 of Table 3 of Appendix A. The sum of commercial, casual and Canada/Mexico smuggling does not equal the total presented in the final column due to the non-linear nature of the model.

Graphic 7: Estimated Tax-Induced Smuggling as a Percentage of Total Cigarette Consumption (Legal and Illegal), 2006

State	Per Adult Legal Sales				
		Commercial Smuggling (Interstate)	Casual Smuggling (Interstate)	Smuggling Involving Canada/Mexico	Total
AL	83.30	-2.38%	2.20%	0.00%	-0.13%
AR	81.40	-5.47%	1.48%	0.00%	-3.69%
AZ	54.50	-7.85%	-9.21%	-13.32%	-34.32%
CA	32.90	-8.05%	-10.73%	-15.45%	-36.56%
CO	53.10	-8.58%	-9.74%	0.00%	-18.06%
CT	50.90	-23.06%	7.81%	0.00%	-12.77%
DE	183.60	-7.22%	91.47%	0.00%	82.75%
FL	71.90	-0.68%	-5.48%	0.00%	-5.82%
GA	68.20	-1.39%	2.07%	0.00%	0.66%
IA	85.30	-0.98%	-0.07%	0.00%	-1.00%
ID	58.80	-6.10%	13.07%	1.34%	8.28%
IL	51.50	-14.80%	-0.39%	0.00%	-14.33%
IN	98.70	-5.49%	18.83%	0.00%	13.28%
KS	55.40	-8.10%	-11.94%	0.00%	-19.76%
KY	145.30	0.00%	7.68%	0.00%	7.23%
LA	77.30	-1.13%	-4.19%	0.00%	-5.04%
MA	44.10	-25.36%	4.70%	0.00%	-18.49%
MD	48.90	-14.84%	3.20%	0.00%	-10.59%
ME	64.80	-29.98%	7.12%	3.21%	-15.74%
MI	56.50	-22.49%	-13.65%	2.41%	-34.46%
MN	55.60	-15.01%	-12.61%	1.80%	-26.05%
MO	105.10	2.66%	10.84%	0.00%	12.49%
MS	92.20	2.23%	3.24%	0.00%	5.09%
MT	51.60	-15.71%	-18.84%	1.79%	-34.21%
ND	73.70	-2.35%	-1.24%	0.77%	-2.65%
NE	59.50	-5.60%	-7.04%	0.00%	-12.26%
NH	135.50	-9.69%	44.51%	1.57%	37.23%
NJ	37.70	-30.12%	-9.35%	0.00%	-40.63%
NM	35.40	-9.71%	-11.59%	-18.25%	-42.38%
NV	68.50	-10.60%	5.94%	0.00%	-3.92%
NY	32.40	-20.90%	-21.61%	2.49%	-40.82%
OH	70.50	-16.69%	2.07%	0.00%	-13.43%
OK	87.20	-12.61%	2.13%	0.00%	-9.61%
OR	54.70	-12.17%	-11.45%	0.00%	-23.85%
PA	62.40	-20.21%	4.93%	0.00%	-13.53%
RI	47.30	-16.97%	-22.36%	0.00%	-45.65%
SC	96.40	4.14%	5.73%	0.00%	9.09%
SD	69.20	-4.20%	-0.44%	0.00%	-4.38%
TN	98.70	1.68%	3.81%	0.00%	5.10%
TX	54.30	-1.87%	-3.20%	-8.71%	-13.41%
UT	34.50	-6.97%	-7.10%	0.00%	-13.67%
VA	78.90	0.00%	30.48%	0.00%	28.67%
VT	63.90	-16.46%	8.73%	2.16%	-3.88%
WA	33.70	-24.73%	-18.67%	2.64%	-42.34%
WI	71.30	-6.85%	-7.79%	0.00%	-14.34%
WV	112.20	-4.91%	15.29%	0.00%	10.35%
WY	78.80	-5.90%	8.27%	0.00%	2.61%

Notes: Estimates computed based on the regression results presented in columns 3 and 4 of Table 3 of Appendix A. The sum of commercial, casual and Canada/Mexico smuggling does not equal the total presented in the final column due to the non-linear nature of the model.

A Backup Analysis of Midwest Sales Data and State Tax Hikes

The model described above provides estimates of smuggling rates based in part on differences in state cigarette tax rates. This may strike some readers as overestimating the lengths people will go to in order to save money. Do people really respond to a tax difference between states by engaging in casual or commercial smuggling?

The historical record, which we discuss later, indicates that the answer is yes. But to make sure our model has not assumed too much about people's response to tax differentials, we acquired a large Midwest cigarette distributor's monthly cigarette sales from January 2006 through September 2008. The data included zip codes for sales in Michigan.

These figures allowed us to observe the county-level sales impact of the two changes in state cigarette taxes that occurred during this 33-month period: Indiana's cigarette tax increase from 55.5 cents per pack to 99.5 cents per pack in July 2007, and Wisconsin's cigarette tax increase from 77 cents per pack to \$1.77 per pack in January 2008. Because the Michigan tax rate remained above Indiana and Wisconsin during the sample period, we would expect to observe cross-border shopping by Michigan residents in these two states.

The sales records indicate that the distributor's average shipments to Michigan counties along the Indiana border increased by 53 percent in response to the tax increase in Indiana. Similarly, the distributor's average increase in shipments to Michigan counties along the Wisconsin border increased by 8 percent in response to the tax increase in Wisconsin.

These figures are consistent with our model. They suggest that Michigan retailers along the borders of Indiana and Wisconsin were expecting more Michigan smokers to shop in-state as the cost savings of buying cigarettes in Indiana and Wisconsin declined and made casual smuggling less attractive to Michigan smokers.

There is also some evidence that cigarette retailers located in Michigan counties along the Indiana border changed their business plans in anticipation of the Indiana tax hike. Shipments to these retailers increased by 58 percent during the three months prior to the Indiana increase. No such behavior was observed, however, in counties along the Wisconsin border prior to the Wisconsin tax hike.

Our Estimates for Michigan, New Jersey and California

In subsequent sections of this study, we discuss in some detail the tax and enforcement histories of Michigan, New Jersey and California. We have focused on these states for several reasons: Each is populous; each borders other taxing jurisdictions that have imposed significantly different levels of cigarette taxation

in the past; and each falls in a separate part of the country — East, West and Central.

Historical and anecdotal evidence indicates that each state has also experienced both casual and commercial smuggling. This evidence is consistent with the findings of our model.

We estimate that from 1990 through 2006, tax-induced casual and commercial smuggling imports in Michigan provided 6.0 percent and 11.6 percent respectively of the state's total cigarette consumption. Our casual smuggling estimate is thus similar to that of DeCicca and his colleagues in their review of 2003 survey data for Michigan (their study did not measure commercial smuggling activities). We also estimate that a small percentage of Michigan's total cigarette market involved smuggling of Michigan cigarettes into Canada (a figure not included in the percentages above), meaning that on balance, casual and commercial smuggling into the state represented 16.0 percent of Michigan's estimated total cigarette consumption from 1990 through 2006 — a little less than one in six cigarettes.

Our smuggling estimates for Michigan in 2006 alone are much higher, a natural result of the state's 50-cent per-pack tax hike in 2002 and its 75-cent per-pack tax hike in 2004. We estimate that tax-induced casual and commercial smuggling in Michigan were 13.6 percent and 22.5 percent respectively of the state's total cigarette consumption in 2006. Although we again calculate that a small amount of Michigan's potential cigarette consumption was diverted to Canada through smuggling, we estimate that the total number of cigarettes smuggled into Michigan amounted to 34.5 percent of the state's total cigarette consumption in 2006. This represents more than one in three cigarettes consumed in the state, or an amount equal to more than 52 percent of the state's legal cigarette sales.

Our calculations suggest that New Jersey also experienced high smuggling rates. We estimate that commercial smuggling imports represented 13.8 percent of New Jersey's total cigarette consumption from 1990 through 2006. During the first half of this period, however, New Jersey's tax rates were relatively low compared to surrounding states. Hence, it is not surprising that our estimates for the period also show that casual smuggling on balance moved a small number of cigarettes — an amount equal to about 0.6 percent of the state's total consumption — out of New Jersey (probably in part to high-tax New York). As discussed below (see "Case Study: New Jersey"), variations in New Jersey's cigarette tax and regulatory policies have meant that the state has served as both an illegal exporter and importer of cigarettes to surrounding states, making it an active commercial hub for cigarette smuggling.

In recent years, New Jersey has raised its cigarette excise tax to the country's highest, and our model no longer shows a net export of casually smuggled cigarettes. Our estimates indicate that casual and commercial smuggling imports

in 2006 represented 9.3 percent and 30.1 percent of New Jersey’s total cigarette consumption.* The total number of cigarettes smuggled into the state in 2006 appears to be about 40 percent — two in five of the cigarettes consumed in the state, or an amount equal to about 68 percent of the state’s legal cigarette sales.

In California, we estimate that casual and commercial smuggling imports from 1990 through 2006 amounted to 5.9 percent and 7.4 percent respectively of the state’s total cigarette consumption, but these figures do not include cigarette smuggling from Mexico. Our model estimates that illegal imports from Mexico represented an additional 10.1 percent of cigarette consumption in California during this period, meaning that smuggled imports of cigarettes represented 24.5 percent of the state’s total cigarette consumption — about one cigarette in four.

Our estimates for California’s 2006 smuggling rates are much higher. We find that the imports from casual and commercial smuggling in 2006 represented 10.7 percent and 8.0 percent respectively of California’s total cigarette consumption, with smuggling from Mexico representing an additional 15.5 percent. On the whole, then, we estimate that smuggled imports of cigarettes accounted for 36.6 percent of California’s total cigarette consumption in 2006 — more than one in three cigarettes, and an amount equal to about 58 percent of California’s legal cigarette sales.

Graphic 8: Estimated Tax-Induced Smuggling in Michigan, New Jersey and California as a Percentage of Total Cigarette Consumption (Legal and Illegal)

State	Year	Commercial Smuggling (Interstate)	Casual Smuggling (Interstate)	Smuggling Involving Canada/Mexico	Total
MI	1990-2006	-11.57%	-6.01%	1.22%	-15.97%
MI	2006	-22.49%	-13.65%	2.41%	-34.46%
NJ	1990-2006	-13.80%	0.60%	0.00%	-12.32%
NJ	2006	-30.12%	-9.35%	0.00%	-40.63%
CA	1990-2006	-7.36%	-5.92%	-10.08%	-24.51%
CA	2006	-8.05%	-10.73%	-15.45%	-36.56%

Notes: Estimates computed based on the regression results presented in columns 3 and 4 of Table 3 of Appendix A. The sum of commercial, casual and Canada/Mexico smuggling does not equal the total presented in the final column due to the non-linear nature of the model.

As the discussion above suggests, we estimate that Michigan, New Jersey and California have some of the highest levels of smuggling — particularly commercial and international smuggling — in the country. The second section of the study recounts the three states’ experiences with tax hikes and smuggling. The stories are memorable and sometimes almost comical, but tax-induced smuggling has had serious impacts on the stated policy goals of improved health and reliable tax revenue.

The Projected Effect of State Tax Changes on Smuggling

Before moving on to a historical review of taxes and smuggling, we would also note that our statistical model allows us to predict the effect of state cigarette tax hikes in any one of the 47 contiguous United States listed earlier.†

* The New Jersey rate in our study is significantly different from the estimates made by Lovenheim and DeCicca et al. Several factors contribute to the differences. First, each of the authors uses different techniques and datasets for measuring smuggling in the state. For instance, Lovenheim’s dataset involves Metropolitan Statistical Areas, whereas our data is statewide. DeCicca et al. use survey data. Moreover, each author uses different periods of study, another factor that would affect the output, since state tax rates fluctuate relative to one another. Perhaps most importantly, Lovenheim and DeCicca are reporting a percentage of consumers who smuggle or report cross-border shopping activities. This study’s output measures a percentage of cigarettes smuggled.

† North Carolina is the only contiguous state excluded, for reasons discussed under “A New Estimate of Interstate Cigarette Smuggling Rates.” A more detailed discussion of the model is available in “Appendix A: The Econometric Analysis” at the end of the study.)

For example, there is a proposal in the Michigan Legislature to raise the state's current per-pack cigarette excise tax of \$2.00 by another nickel. A second proposal would cut the same tax by 25 cents per pack.

Assuming that other states do not change their cigarette excise taxes,* and using Michigan's 2006 cigarette sales figures, we would estimate that another 5-cent increase in the cigarette excise tax would result in a drop in legal cigarette sales of 683,500 packs from an increase in casual smuggling alone. Another 3.8 million packs would be lost to commercial smuggling.† On the other hand, if the state of Michigan chose to cut taxes by 25 cents per pack, legal sales would increase by about 24.8 million packs due to reductions in casual and commercial smuggling. This number appears in Graphic 9 along with the effect of 25-cent and 50-cent changes in state cigarette taxes for California, Michigan and New Jersey.

Graphic 9: Change in Legal Sales Due to Selected Changes in Tax Rates for Selected States

Tax Change (cents)	California		Michigan		New Jersey	
	Change in Sales (x1000 packs)	% Change in Sales	Change in Sales (x1000 packs)	% Change in Sales	Change in Sales (x1000 packs)	% Change in Sales
-50	289,551	32.4%	50,973	11.8%	56,343	22.6%
-25	135,881	15.2%	24,755	5.7%	26,874	10.8%
2006 Rate	--	--	--	--	--	--
25	-120,151	-13.4%	-23,374	-5.4%	-24,508	-9.8%
50	-226,394	-25.3%	-45,443	-10.5%	-46,857	-18.8%

Source: Authors' calculations based on 2006 legal sales of cigarettes for each state. (See Table 5 in "Appendix A: The Econometric Analysis.")

In short, a trade-off exists between taxes and legal sales. An increase in the tax rate will produce fewer legal, and more illegal, sales of cigarettes. Similarly, a decrease in the tax rate will produce more legal, and fewer illegal, sales of cigarettes.

The practical effects of this dynamic should become apparent in the historical review that follows. In the final section of the study, we'll consider what implications our findings might have for policymakers.

Historical Review

Case Study: Michigan

In Michigan, the 6 percent general state sales tax is imposed on top of the price of the cigarettes and the state and federal excise taxes (\$2.00²⁸ per pack and \$0.39²⁹ per pack respectively). Michigan's cigarette excise taxes have not always been so high. Michigan imposed its first tax on cigarettes in 1947 — 3 cents per pack — and has increased the tax nine times since then (see Graphic 10). The first big increase occurred in May 1994, when Proposal A, a ballot initiative, tripled the

* The model is based on the differences between a state's cigarette taxes and the cigarette taxes of other states. Hence, the model will generate considerably different results from the ones in the text above if we assumed that all of Michigan's bordering states increased their taxes by the same amount and at the same time Michigan did. In that (unlikely) case, the net change in smuggling would probably be small and limited to Indian reservations.

† According to the state Treasury, more than 560 million packs of cigarettes were sold legally in Michigan in 2007. See "Cigarette Sales History: Calculated Packs Sold Taxed Based on Revenue Collections," Michigan Department of Treasury's Office of Revenue and Tax Analysis, September 2008.

28 *The Tax Burden on Tobacco*, 16.

29 *Ibid.*, iv.

state’s cigarette tax to 75 cents per pack, then the highest in the nation.³⁰ Michigan then increased its cigarette excise tax rate to \$1.25 per pack in August 2002 and to \$2.00 in July 2004, an increase of 167 percent in less than two years.

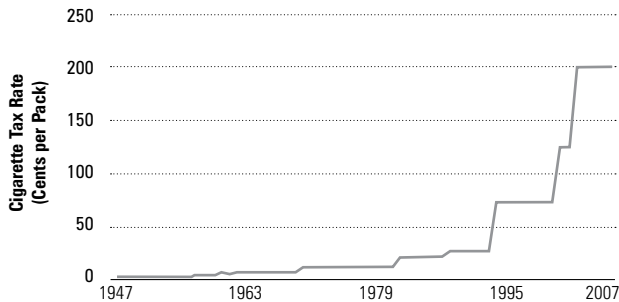
Graphic 10: Michigan Cigarette Excise Tax Rates Since 1947

When Tax Applied	Tax per Pack
July 1, 1947 — July 31, 1957	3¢
August 1, 1957 — January 31, 1960	5¢
February 1, 1960 — June 30, 1961	6¢
July 1, 1961 — June 30, 1962	5¢
July 1, 1962 — March 31, 1970	7¢
April 1, 1970 — April 30, 1982	11¢
May 1, 1982 — December 31, 1987	21¢
January 1, 1988 — April 30, 1994	25¢
May 1, 1994 — July 31, 2002	75¢
August 1, 2002 — June 30, 2004	\$1.25
July 1, 2004 — Present	\$2.00

Source: Michigan Department of Treasury, Bureau of Tax and Economic Policy, Tax Analysis Division

Michigan’s cigarette tax is currently one of the highest in the nation. Since 1994, cigarette tax hikes have helped push the price of cigarettes in Michigan to more than \$5.00 per pack, well above the price in most other states and countries. Together with federal cigarette taxes, which have increased from 34 cents per pack to 39 cents per pack since January 2000, the total taxes on a pack of Michigan cigarettes are now about as high as the cost of the cigarettes themselves.

Graphic 11: Michigan Cigarette Excise Tax Rates Over Time (Cents per Pack)



Source: Michigan Department of Treasury, Bureau of Tax and Economic Policy, Tax Analysis Division. Each year lists the highest state excise tax rate effective that year.*

* In other words, when a tax increase became effective midyear, we plotted the higher rate for that year.

Smuggling and Other Unintended Consequences of Cigarette Taxation

As we mentioned earlier, cross-border disparities in prices on an easily concealed and transported commodity like cigarettes can induce cross-border smuggling. The cost of such smuggling is not only the loss of projected revenue to the treasuries of higher-tax states. Crime can beget more crime, especially when commercial smuggling is involved. Thus, as we discuss in the pages that follow, the costs of

30 Michigan Department of Treasury, “Michigan’s Cigarette and Tobacco Taxes 2004,” October 2005, 47.

cigarette smuggling in Michigan include a host of unintended — and sometimes surprising — consequences:

- financing a terrorist organization;
- thefts of untaxed cigarettes, including truck hijackings;
- thefts of state tax stamps;
- counterfeiting of tax stamps;
- property damage;
- counterfeiting of name-brand cigarettes, which are replaced with adulterated products, including counterfeit cigarettes from China;* and
- violence against residents and police officers.

This list of ancillary crimes may seem bizarre. After all, cigarettes are a commonplace product that is legal, relatively inexpensive and readily available in convenience stores and gas stations across the state. Who ever heard of potato chip smuggling, nail polish bootlegging or root beer-related violence?

But a key difference between those products and cigarettes is the presence of a cigarette excise tax that fluctuates from state to state. Michigan's high cigarette taxes and proximity to low-tax states make it an ideal destination for illicit cigarettes and other tobacco products. Michigan's border along Ohio and Indiana runs for more than 178 miles,³¹ making detection of illegal cross-border movement difficult to track.

A large semitrailer can hold more than 200,000 packs of cigarettes. This estimate is conservative because the trailers are usually not stuffed with cigarettes, since they need to be hidden among other goods to thwart possible detection at weigh stations or during direct inspections. Bootleggers smuggling 200,000 packs can rake in around \$400,000 per tractor-trailer load before expenses.

Enforcement of Michigan's Tobacco Products Tax Act is not easy, given the ease of crossing state borders. Nevertheless, arrests of commercial smugglers, illicit distributors and other violators of the law are made with some frequency. According to records obtained from the Michigan State Police, 95 people were convicted of violating the act between July 1, 2004, and Aug. 14, 2008. Most of the convictions resulted in light punishment.†

Obviously, much of the tax-induced smuggling of cigarettes to Michigan is casual smuggling. Such cross-border shopping, whether in bordering states or at military bases and Indian reservations (two other sources of lower-tax cigarettes), typically

* Counterfeit cigarettes — frequently imported from China — are a major concern of manufacturers and government officials alike. Not only do they enter into the states and elsewhere illegally and untaxed; they are often found to be adulterated with everything from sawdust, sand or arsenic to dangerous levels of pesticides. A 2007 report on activities of the European Commission indicates that between 50 percent and 75 percent of seizures involved counterfeit cigarettes. A 2006 report by the Royal Canadian Mounted Police covering the Canadian illicit market in tobacco reports that 22 percent of all tobacco-related RCMP seizures were counterfeit cigarettes from China. (See Royal Canadian Mounted Police Criminal Intelligence, Federal Tobacco Control Strategy, *The Illicit Tobacco Market in Canada: January-December 2006*. http://www.rcmp-grc.gc.ca/fio/ftcs-sfct_e.pdf (accessed Sept. 24, 2008)). In 2004 the U.S. Department of Homeland Security announced its largest single investigation into cigarette smuggling up to then of both genuine and counterfeit cigarettes.

† There is currently federal and state legislation wending through Congress and the Michigan Legislature that would attempt to boost enforcement and increase penalties for those caught in the illicit tobacco trade. In March 2008, the Michigan Senate voted to pass Senate Bill 882, which would amend the state Tobacco Products Act to increase penalties for persons possessing comparatively small amounts of untaxed cigarettes. Senate Bill 883, which the Senate also passed, would amend the General Sales Tax Act and punish retailers for not complying with Michigan cigarette tax laws.

31 Tony Olkowski (Center for Geographic Information, Michigan Department of Information Technology), e-mail message to James Hohman of the Mackinac Center for Public Policy, Sept. 23, 2008.

does not result in arrests or violent crime. Casual smuggling has only one primary illegal result: reducing state tax revenues through unpaid state cigarette taxes.

Internet sales have also made it easier for Michiganders to purchase low-tax or tax-free cigarettes without even leaving home. Michigan's Treasury Department still maintains a tobacco information Web page with the following State Police warning: "Beware! It's a crime to purchase cigarettes and other tobacco products by mail, over the Internet, or in any other way unless the seller is properly licensed by the State of Michigan and each cigarette pack is affixed with a Michigan tobacco stamp. Violations are punishable by up to five years imprisonment, along with seizures of assets from anyone possessing illegally purchased cigarettes."³²

The Treasury's Web page also provides the following instructions for law-abiding cross-border shoppers and any other smokers who purchase untaxed cigarettes: "Should a Michigan purchaser become aware that they have acquired cigarettes without Michigan stamps/taxes, Treasury has provided forms with which taxpayers can send in the Tobacco and Use taxes that should have been paid. By promptly doing so, these individuals can avoid costly penalties that would otherwise be due."³³ Of course, most smokers who purposely buy untaxed cigarettes are not likely to follow these instructions.

But it is conceivable that some smokers unknowingly purchase smuggled cigarettes, given how much contraband is in the market. Indeed, one study estimates that nearly one in 10 cigarettes purchased nationwide — through the Internet, legal border crossing and smuggling — are associated with tax evasion.³⁴

Technically, the cross-border shopping in Michigan typically results in a "smuggled" product. Once Michiganders who purchase their cigarettes in Indiana have crossed the border with the product, they are carrying contraband materials (though penalties are currently light for small amounts).

The same is true for the importation of other untaxed tobacco products. Michigan imposes a 32 percent tax on the wholesale price of these noncigarette tobacco products, including loose tobacco for hand-rolling (usually referred to as "HRT," or "hand-rolled tobacco"). The state of Pennsylvania imposes no taxes on such products, making the state an attractive destination for casual smugglers from Michigan, New York and other nearby states.

Because cigarette sales represent the vast majority of the tobacco sales marketplace, our primary focus is on cigarette taxes and their unintended consequences. Legal cigarette sales in the state accounted for almost 96 percent of the total tobacco revenue generated to the state in August 2008.*

* Calculated from data provided by Scott Daragh, State of Michigan Office of Revenue and Tax Analysis, in an interview conducted by James Hohman, Mackinac Center for Public Policy, September 26, 2008.

32 Michigan Department of Treasury, *Michigan Taxes: Tobacco Tax Information* http://www.michigan.gov/taxes/0,1607,7-238-43542_43547---,00.html (accessed Sept. 30, 2008).

33 Michigan Department of Treasury, *Michigan Tobacco Enforcement*, (State of Michigan Department of Treasury, November 6, 2006), 3, http://www.michigan.gov/documents/treasury/TobaccoTaxEnforcementReportltrhead_178062_7.pdf (accessed Oct. 4, 2008).

34 Mark Stehr, "Cigarette tax avoidance and evasion," *Journal of Health Economics* 24 (2004): 277.

Michigan's Experience With Cigarette Taxes: The 1940s and 1950s

Michigan's first cigarette tax, Public Act 265, was enacted during the final hours of the legislative session in June 1947 for the purpose of paying soldier bonuses, and took effect on July 1 that same year.³⁵ The Legislature had previously passed a cigarette tax, but it was rejected by the voters. The 1947 rate was 3 cents per pack, and unlike every other cigarette-tax state except Massachusetts, Michigan did not require a tax stamp or meter impression as proof of payment. Tax stamps were rejected due to their cost and were not implemented until decades later, although they were briefly considered in the 1950s as a way to thwart crime.

Government officials were initially optimistic about cigarette tax compliance and seemed to view their biggest challenge as simply convincing the business owners who sold cigarettes to remit the tax. This quote, from a 1947 meeting of the National Tobacco Tax Association, shows just how optimistic the early days of cigarette taxes in Michigan were: “[T]he cooperation of the industry has been excellent ... I am hopeful that with this cooperation our non-stamp plan is going to work out satisfactorily. Possibly after another year's experience we may have some more troubles to bring to this conference, but at the present time things are running as smoothly as we can expect with a new tax program of this type.”³⁶

This pronouncement may have come back to haunt the speaker. The biggest challenge of the new tax program would come not from the mostly law-abiding cigarette retailers, but from the criminal element. Cigarette bootlegging began immediately after the tax took effect. Although this crime occurred on a relatively small scale during the 1940s and 1950s, it proved resistant to law enforcement efforts.

The government responded by amending the cigarette tax law twice, in 1949 and 1951. Under the 1951 law, violations that “involved importation, acquisition, or possession of cigarettes, the wholesale value of which was \$50 or more” were made felonies.³⁷ The new statute also gave the Department of Revenue the “authority to seize the cigarettes and vehicles and vending machines when there was reasonable cause to believe that these cigarettes were being imported, transported, or possessed in violation of the law.”³⁸ After the change in the statute, optimism again prevailed. The director of the Cigarette Tax Division of the state Department of Revenue stated, “[W]e think in Michigan ... that we are on top of the cigarette bootlegging situation.”³⁹

Another major change to the statute in 1951 was the addition of the transporter section. This section, which may have appeared to the layperson to be a simple licensing requirement, was actually designed solely to catch criminals and in fact had “absolutely no application to the legitimate trade practices.”⁴⁰ A transporter was defined as “an individual who imports into Michigan from a source outside Michigan, or who transports in Michigan cigarettes obtained from a tax-free

35 Roy Struble, “Tax Evasion – Current Developments,” in *Proceedings from the 26th Annual Meetings of the National Tobacco Tax Association*, (Chicago: Federation of Tax Administrators, 1952), 6.

36 Clarence W. Lock, “Comments From New Cigarette Tax States – Michigan,” in *Proceedings from the 21st Annual Meetings of the National Tobacco Tax Association*, (Chicago: Federation of Tax Administrators, 1947), 31.

37 Roy Struble, “Report of the Committee on Tax Evasion,” in *Proceedings from the 27th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1953), 21.

38 *Ibid.*

39 “Tax Evasion,” *26th Annual Meeting*, 7.

40 *Ibid.*

source which is not licensed under the cigarette tax statute.”⁴¹ The law now required a transporter to obtain a permit from the Department of Revenue containing information such as the origin of the cigarettes and the intended recipient. The transporter was also required to stop for inspection at the first Michigan State Police post in the state. Under this law, commercial smugglers could then be prosecuted simply for not having permits.⁴²

In 1949, the federal government also enacted a measure meant to deter interstate smuggling. Known as the Jenkins Act, the law requires anyone transporting cigarettes for profit across state lines to report the details of the transaction to state tax administrators. The reports must be sent to each state’s treasury or designated collector of taxes and include such data as “the name and address of the person to whom the shipment was made, the brand, and the quantity thereof.”⁴³

In December 1951 at the Indiana-Michigan border, authorities stopped a semi-trailer that was escorted by a car carrying a driver and three armed men. The truck was transporting 299 cases of cigarettes obtained in St. Louis and intended for resale in Detroit. The arrest led to a case that made its way to the state’s Supreme Court after a lower court held that the transporter requirement placed an “undue burden on interstate commerce.”⁴⁴ In 1953 the Michigan Supreme Court ruled that the license requirement did not in fact interfere with interstate commerce.

Law enforcement officials initially bemoaned the difficulty of obtaining convictions, despite making arrests and confiscating contraband cigarettes, vehicles and vending machines. These difficulties were due to the need to avoid violating both the U.S. Constitution’s “commerce clause” and search-and-seizure rules.⁴⁵ Another difficulty was the complexity of the criminal operations involved. In 1953 the Supervisor of the Cigarette Tax Division of the Department of Revenue speculated that Detroit was dealing with syndicate operations using cigarettes that came primarily from the St. Louis area, rather than petty thieves.⁴⁶

The frustration of law enforcement and revenue officials was described by Michigan Assistant Attorney General William B. Elmer:

By way of background, I should first point out that the smuggling of cigarettes is still a real problem, as many of you gentlemen know from personal experience. By the very nature of the business, of course, the problem of smuggling is always greater than it appears on the surface. We can only hazard a guess as to the numbers of truckloads that get through without our knowledge. I do not know that smuggling is going on. I do not know how much.⁴⁷

Gradually law enforcement efforts started to pay off. In February 1953, after extensive preparation, police made “a number of arrests” in the Detroit area.⁴⁸ Fourteen people were brought to trial, resulting in seven convictions. And from May 1951, when the statute was changed, until early 1954, 20 of the 33 people

41 Ibid.

42 Ibid.

43 15 U.S.C. § 376(a)2.

44 “Tax Evasion,” *26th Annual Meeting*, 7-8.

45 William B. Elmer, “Review of Recent Court Cases Involving Cigarette Tax Statutes,” in *Proceedings from the 27th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1953), 11.

46 “Committee on Tax Evasion,” *27th Annual Meeting*, 4.

47 “Review of Recent Court Cases,” *27th Annual Meetings*, 11.

48 Roy Struble, “Criminal Penalties,” in *Proceedings from the 28th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1954), 7.

tried on cigarette-related violations were convicted, and over 1,000 cases of cigarettes were confiscated.⁴⁹ In 1954, the deputy commissioner for the state's Revenue Department announced:

I said the tide turned, and it really did; when you get convictions of ringleaders sustained by the state supreme court and put them in the state penitentiary for from three to five years, when you confiscate trucks and other vehicles and cigarettes having a value of more than \$125,000, you are making the bootlegging activity pretty unprofitable. Consequently, we are now able to say that there is no organized bootlegging on a large scale in Michigan, and neither has there been in the past year and a half.⁵⁰

Many years later, it is clear that this view was overly optimistic, probably due to policymakers' inexperience with tax-induced smuggling. As Michigan's assistant attorney general had earlier admitted: "Michigan is relatively a young state insofar as the tax on cigarettes is concerned. We passed our act in 1947, and I freely admit that we are still experimenting."⁵¹

Also in 1954, the director of Cigarette and Miscellaneous Taxes in the Michigan Department of Revenue made this assessment of the department's role in fighting cigarette-related crime: "While the Michigan Department of Revenue remains primarily a tax collection agency, it has irrevocably become in its administration of the cigarette tax law a pseudo-police agency and a quasi-judicial body."⁵²

The 1960s: The Tax Rate Increases

In fiscal 1958, the first cigarette tax increase raised the rate to 5 cents, and the 1960s saw three changes in the rate. First, in fiscal 1960 it rose slightly for the second time, to 6 cents. Then in fiscal 1962 it was lowered to 5 cents. This decrease coincided with a slight increase in the number of taxed cigarettes sold in the state relative to other states, and it is reasonable to assume that the rate decrease led to a small decrease in illegal cigarette purchases. Later, however, the rate rose to 7 cents in fiscal 1963 and remained there for the rest of the decade.

In terms of law enforcement, the decade started off on an optimistic note, just as the last decade had. Said the director of Cigarette and Miscellaneous Taxes at the Department of Revenue: "At the present time in Michigan we do not feel that any serious border problem exists with our neighboring states."⁵³ In 1961, the NTTA reported that no arrest had been made for illegal transportation of cigarettes for the past two years but stressed the need for "continued vigilance."⁵⁴ The next few years did see some arrests, including one in which a bus and 1,605 cartons of cigarettes were seized.⁵⁵ There were also reports of traffic in cigarettes and alcohol between Detroit and Windsor, Ontario.⁵⁶

49 Ibid.

50 Clarence W. Lock, "Enforcement Policies of the Michigan Department of Revenue," in *Proceedings from the 29th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1955), 2-3.

51 "Court Cases-Cigarette Tax Statutes," *27th Annual Meeting*, 11.

52 "Criminal Penalties," *28th Annual Meeting*, 6.

53 David W. Parker, "Border Problems in Michigan," *Proceedings from the 35th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1961), 23.

54 Ibid., 24.

55 "Report of the Committee on Tax Evasion," *Proceedings from the 38th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1964), 56.

56 "Committee on Tax Evasion," *38th Annual Meetings*, 72.

One problem, which could have become more serious if left unattended, was Michigan's general tobacco products tax, which went into effect in January 1960.⁵⁷ Cigars were not covered by the federal Jenkins Act, so many Michiganders used mail order to purchase tax-free cigars, just as they once had with cigarettes. In some cases, cigars were billed as other items, such as tissues or candy. The problem was compounded by the fact that adjacent states did not tax cigars, so Michigan residents who lived near the border often purchased them in neighboring states, sometimes sidestepping Michigan's tobacco products use tax during the shopping trips. Legislators allowed the tax to expire in June 1961.⁵⁸

Across the country, the cigarette tax landscape began to change in the mid-1960s as state legislators responded to growing concerns about smoking and health. In 1964, the U.S. Surgeon General issued his famous report linking smoking to a variety of health problems. The report prompted legislators to raise cigarette taxes even further.

In 1977, the American Commission on Intergovernmental Relations said of the report: "Prior to that time, the disparity in state tax rates was not very great. There was only a little casual smuggling. There is no question but that the federal action in releasing that Surgeon General's report really amounted to throwing gasoline on the tax rate fires, especially in the Northeast and Midwest where states were having serious fiscal problems."⁵⁹ The release of the report gave way gradually to negative changes in the public perception of smoking. This attitude is so prevalent today that smoking has become a politically popular target of taxation.

The 1970s: More Aggressive Attempts to Fight Smuggling

A 2006 report from Michigan's Treasury Department correctly states that "the taxation of cigarettes faces less political opposition because it does not affect the majority of taxpayers."⁶⁰ In 1972, Sen. Harry A. Demaso, chairman of the Michigan Senate's Committee on Taxation, acknowledged this candidly: "It's a lot easier for a governor and legislators to levy a tax on cigarettes, tobacco products, liquor, and beer, than to levy broad-based taxes."⁶¹

The decade began with a tax rate increase in 1970 from 7 cents to 11 cents — a 57 percent increase — and it remained at 11 cents for the rest of the decade. Along with the rate increase came an intensified awareness of, and desire to fight, cigarette-related crime. In 1970 the state's greatest sources of lost cigarette sales were to other states⁶² and to cigarettes "lost in transit, hijacking and thefts."⁶³

At a 1970 NTTA meeting, Michigan reported 19 cigarette tax violations for the year: 10 for possessing, five for transporting, three for selling, and one "other."⁶⁴ At a 1976 NTTA meeting, an analyst concluded that Indiana's per-capita cigarette consumption "confirm[ed] that bootlegging [was] in proportion not only to actual tax rates but also to tax disparity. ..."⁶⁵ Indiana cigarettes were frequently finding their way to Michigan, reducing tax revenue to the treasury.

57 "Border Problems in Michigan," 35th Annual Meetings, 23.

58 Ibid.

59 John Shannon, "The Prospects for Federal Legislation against Cigarette Smuggling," *Proceedings of the 51st Annual Meeting of the National Tobacco Tax Association State AND Federal Responsibility*, (Chicago: Federation of Tax Administrators, 1977), 26.

60 "Michigan's Cigarette and Tobacco Taxes 2001," Michigan Department of Treasury, 2006, 2.

61 Sen. Harry A. Demaso, "Administrator-Legislative Relations," *Proceedings from the 46th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1972), 35.

62 "Report of the Committee on Tax Evasion," *Proceedings from the 44th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1970), 64.

63 Ibid.

64 Ibid., 63

65 "Reports of the Regional Governors – Central Region," *Proceedings from the 50th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1976), 98.

The 1976 NTTA minutes also describe “[o]ne smuggler [who] is known to have run three or four trailer-loads of cigarettes into Michigan every week, even when the tax there was only 5 or 6 cents. Frequently, violators feel that other criminals are more of a threat than are law enforcement agencies.”⁶⁶

This anecdote highlights one of the problems with high state tax rates. Because black markets operate outside of the legal framework that provides for protection of property, enforcement of contracts, etc., the participants perform these functions themselves. The results are often violent, especially since many of the participants are criminals even outside the context of cigarette smuggling.

Smugglers are not, however, ignorant of the laws of the legal marketplace. In order to avoid capture, they need to familiarize themselves with the laws and regulations they are breaking. George F. Stewart, executive director of the Interstate Revenue Research Center, summed it up in 1975: “These smugglers are very knowledgeable of individual state statutes, regulatory processes, and systems used to monitor or enforce cigarette tax laws. They possess a proven capability to utilize statutory weaknesses or omissions for their personal advantage.”⁶⁷

Law enforcement related to cigarette smuggling became more aggressive and complex in the 1970s, with more emphasis on interstate cooperation and an attempt to get the federal government involved. In addition, a 1970 Michigan law gave cigarette tax agents the power to arrest. In 1972, the commissioner of revenue described the Cigarette Tax Enforcement Unit in terms that suggest the unit was prepared for serious violent crime:

[There are] two full-time state police detectives assigned to it. These men have blanket authority to travel anywhere in the United States, are equipped with unmarked state cars, two-way radios, and are all armed. ... Our cigarette tax statute is unique in that our investigators have the power to make an arrest of any person violating any provision of the act in their presence.⁶⁸

Interstate intelligence sharing was stressed more during this decade. According to the Committee on Legislation and Legal Activities of the Alcohol and Tobacco Enforcement Bureau at the Wisconsin Department of Justice, “The committee strongly recommends that ... intelligence information be freely but confidentially exchanged between states on a national as well as regional basis and that this intelligence ... be available in a centralized, computerized repository. Mr. Parker of Michigan cited the value of intelligence recently supplied him by Mr. Chayka of Wisconsin.”⁶⁹

66 *Ibid.*, 97.

67 George F. Stewart, “The Interstate Revenue Research Center,” *Proceedings from the 49th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1975), 25.

68 “Administrator- Legislative Relations,” 21.

69 “Committee on Legislation and Legal Activities,” *Proceedings from the 47th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1973), 9.

The Interstate Revenue Research Center

1975 ushered in a new era in cigarette-crime fighting when the Interstate Revenue Research Center was created to study and coordinate anti-bootlegging efforts. A \$788,500 grant from the federal Law Enforcement Assistance Administration and a \$17,500 contribution from each member state provided the funds. The original member states were Michigan, Indiana, Ohio, Minnesota and Illinois. Missouri and Florida joined later, and a similar group was formed on the East Coast.

The IRRC's objectives were described as, "The reduction, elimination, or neutralization of systems which directly or indirectly support the illegal trafficking and sales of cigarettes within the jurisdictional boundaries of our membership states."⁷⁰ The group was a "service organization" with no law enforcement powers.⁷¹ It collected information and facilitated the exchange of information among the member states, made recommendations to states and "conduct[ed] 'tactical' operations in source states, using informants, sophisticated equipment and vehicles, and surveil[led] smugglers into the home states of the group."⁷²

The IRRC also pushed for federal involvement in fighting cigarette crime, including federal legislation and federal prosecution of "wholesalers who conspired with smugglers."⁷³ The group took credit for returning \$300,000 to its members through the sale of contraband and collected cigarette taxes in its first few months.⁷⁴

The creation of the IRRC represented a new, more aggressive plan of attack on cigarette-related crime, but it anticipated a real challenge:

Most assuredly, cigarette smuggling is a multi-million-dollar-a-year enterprise. It is a wide open ball game with a great variety of players who possess talents and capabilities ranging from the weekend players with their campers and cars to the management level personalities who manipulate large volume shipments on an interstate basis. The Interstate Revenue Research Center is devoting a percentage of its time to each segment of this spectrum.⁷⁵

Increased Federal Involvement in Fighting Cigarette Crime

In 1977, at the request of the federal government, a report on the problem of cigarette smuggling was drawn up by the Advisory Commission on Intergovernmental Relations, an independent federal agency established to study challenges faced by multiple levels of government. The ACIR report, titled "Cigarette Bootlegging: A State and Federal Responsibility," stated that cigarette smuggling in the United States was primarily due to state tax differentials⁷⁶ and recommended, among other things, that governments exercise restraint with their cigarette tax rates.⁷⁷ The report is one of the most oft-cited studies of cigarette taxes and smuggling in the academic literature.

⁷⁰ "Interstate Revenue Research Center," *49th Annual Meetings*, 24.

⁷¹ *Ibid.*, 25.

⁷² "Committee on Cigarette Tax Evasion," *Proceedings from the 50th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1976), 12.

⁷³ "Reports of the Regional Governors – Central Region," 97.

⁷⁴ George F. Stewart, "Cooperative Efforts Against Bootlegging in the Midwest," *Proceedings from the 50th Annual Meetings of the National Tobacco Tax Association*, (Chicago: Federation of Tax Administrators, 1976), 76.

⁷⁵ "The Interstate Revenue Research Center," *49th Annual Meetings*, 25.

⁷⁶ *Cigarette Bootlegging: A State AND Federal Responsibility*, (Washington, D.C.: Advisory Commission on Intergovernmental Relations, 1977), 1.

⁷⁷ *Ibid.*, 5.

Because of the interstate nature of smuggling and because smuggling was not a federal crime, many in law enforcement believed states did not have the support they needed from federal enforcement agencies. To that end, the ACIR report also recommended a federal law to prohibit the transport of large quantities of cigarettes across state lines with the intent of evading state and local excise taxes.⁷⁸

The report also discussed a more radical course of action the federal government could take: federalizing the cigarette tax. Under this proposal the federal government would increase its cigarette tax rate and distribute the revenue among the states, while the states would eliminate their cigarette taxes. That recommendation sometimes appears in modern scholarship, too. The ACIR's official recommendation was for governments to exercise a degree of restraint with regard to cigarette taxes.⁷⁹ The issue of cigarette smuggling was suddenly receiving attention from media outlets like *The New York Times* and the CBS television program "60 Minutes," and the group was hopeful about the chances for federal involvement.⁸⁰

Congress responded by passing the Contraband Cigarette Act in 1978, which prohibits the transport, receipt, shipment, possession, distribution or purchase of more than 60,000 cigarettes not bearing the tax stamp of the state where the cigarettes are found (Michigan did not yet have a cigarette tax stamp). Possible punishments include prison, large fines and vehicle seizure.

Tax-Exempt Cigarette Sales on Indian Reservations

The renewed zeal for cracking down on illegal cigarette sales did not stop with smuggling and interstate border shopping. In the 1970s, government officials in Michigan and other states turned their attention to the sales of tax-free cigarettes on Indian reservations. Smokers looking to evade state cigarette sales and excise taxes had long been patronizing the reservations since Indian tribes are sovereign nations.

In 1978 the NTTA's Committee on Tax Evasion's "Report of Indian Cigarette Tax Litigation" warned of substantial revenue losses and stated that others besides state officials should be concerned about the continued sale of tax-free cigarettes in smokeshops:

Cigarette manufacturers and distributors should be concerned because these tax losses must be made up by increases in other taxes, some of which will inevitably fall upon them. ... Even Indian retailers should be concerned, because the consequences of such drastic losses of state tax revenues will inevitably result in more demands for an end to the historical tax immunities which Indians have enjoyed.⁸¹

78 Ibid.

79 Ibid., 28.

80 Ibid.

81 Committee on Tax Evasion, "Review of Indian Cigarette Tax Litigation," in *Proceedings from the 52nd Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1978), 51.

Officials in various states, as part of their overall efforts to reclaim lost cigarette tax revenue, began demanding that merchants on Native American lands start remitting tax on their cigarette sales to non-Indians. Hence, tax-induced smuggling was now straining relations between state government and both cigarette manufacturers and Indian reservations.

Tribal leaders were not initially compliant, and litigation ensued in some states, including California, Washington and New York. During the protracted legal battles, the ambiguity of the law and the potential for a huge profit led to the opening of numerous “smokeshops” on tribal lands, often accompanied by aggressive marketing. State policymakers’ hands seemed to be tied as courts debated the law, and various states tried to negotiate with individual tribes.

Michigan entered into negotiations with tribal leaders, and the decade closed with a victory for the state in limiting tax-free cigarette sales. The Michigan Treasury Department negotiated an agreement with the Bay Mills Indian Tribal Council, which took effect in 1979, limiting the number of tax-free cigarettes the tribe could purchase annually. The number was calculated by multiplying Michigan’s per-capita cigarette consumption by the number of tribe members living on the reservation, and then subtracting the 25 percent of cigarettes that were estimated to be purchased by Indians off the reservation.⁸² The agreement also allowed the state to conduct an annual audit, and the tribe agreed to pay the excess tax if it purchased more than the allotted number of cigarettes in one year.

Courts have generally ruled that cigarettes sold on tribal lands to Native Americans are exempt from state excise taxes unless authorized by federal law. However, sales to non-Indians are generally held to be taxable. In 1980 the U.S. Supreme Court reached a decision in the case of *Confederated Tribes of the Colville Indian Reservation v. State of Washington*. Originally a federal district court had ruled in favor of the tribes, explaining that they had adopted a tax of their own already, which pre-empted the state tax; adding state taxes to the tribal tax would violate the tribes’ right of self-government.

The U.S. Supreme Court, however, held that states could require the tribes to collect cigarette taxes on sales to non-Indians. In 1985, the U.S. Supreme Court decided *California State Board of Equalization v. Chemehuevi Indian Tribe*, holding that California could require Indian reservations to collect cigarette taxes on sales to non-Indians.

In response to a questionnaire that the National Association of Tax Administrators sent to the states in 1985, Michigan indicated that its negotiations with tribal leaders had “ended the Indian smokeshop problem.”⁸³ A 2006 report from the state Treasury Department recounted the success of the negotiations:

82 Robert C. Pitcher, “Report on an NATA Survey on State Cigarette Inspection Programs and Indian Smokeshops,” National Association of Tax Administrators, in *Proceedings from the 59th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1985), 13.

83 *Ibid.*

[T]he Department of Treasury has committed significant time and resources toward establishing relationships with the various Michigan tribes and developing specific protocols to help guard against the inappropriate distribution of untaxed cigarettes. These efforts, with the assistance of many of the tribes, have resulted in a significantly enhanced enforcement regime.⁸⁴

A specific example of such effort was the Department-led negotiations with the federally recognized tribes located in Michigan, where the States and the Tribes got together in an effort to obtain broad tax agreements that address a variety of taxes, including tobacco. ... This two-year process resulted in agreements with eight of the 12 tribes. ... [T]hese agreements cooperatively ensure the collection of Michigan tobacco taxes by providing specific protocols for sales within “Indian Country” as well as enforcement provisions allowing the state to audit and inspect within these sovereign lands.⁸⁵

With regards to those tribes which do not have an agreement with the State ... the Department of Treasury continues to monitor and enforce State tax laws, to the extent allowed by federal law. These efforts have resulted in a number of cigarette seizures and a considerable amount of litigation. To date, the State has prevailed in all such litigation with the most recent decision coming from the U.S. District Court specifically upholding the Department’s established protocols.⁸⁶

The Treasury report also included data on the number of packs of cigarettes sold in the state between 1993 and 2003 that were tax-exempt.⁸⁷ This data listed not only sales on Indian reservations but also sales on military bases, which will be discussed below. According to the report, tax-exempt sales comprised 0.90 percent of total sales in 1993, jumped to a high of 1.71 percent in 1995, gradually fell to 0.60 percent in 2001 and finally rose slightly to 0.82 percent in 2003.⁸⁸

Military base sales appear to have originally been a larger problem. In 1995, over 13 million untaxed packs were sold on Michigan military bases, while only 327,621 were sold on Indian reservations. By 1999 smokeshop sales had eclipsed military sales, and in 2003 approximately 2.3 million untaxed packs were sold on military bases, compared to approximately 3.4 million on reservations. According to Scott Darragh of the Office of Revenue and Tax Analysis with the Michigan Department of Treasury, the state no longer keeps official data on sales at Indian reservations and military bases.⁸⁹

Tax-Exempt Cigarette Sales on Military Bases in Michigan

As these numbers show, Michigan was at one point losing more revenue to tax-exempt sales on military bases than on Indian reservations. While military bases

⁸⁴ *Michigan Tobacco Enforcement*, (2006), 3.

⁸⁵ *Ibid.*

⁸⁶ *Ibid.*, 3-4.

⁸⁷ Michigan Department of Treasury, *Michigan’s Cigarette and Tobacco Taxes 2004*, October 2005, 14.

⁸⁸ *Ibid.*

⁸⁹ James Hohman, Mackinac Center for Public Policy, telephone interview with Scott Darragh, Michigan Department of Treasury’s Office of Revenue and Tax Analysis, November 24, 2008.

obviously did not present the sovereign-nation problem of the Indian smokeshops, there was another impediment to cigarette tax remittance by military bases: In 1940 the federal government enacted the Buck Act, which prohibited states from taxing members of the military and their dependants on cigarette purchases. The act applied to sales in post exchanges (the military's equivalent of a department store), commissaries (similar to civilian grocery stores) and ships' stores run by the U.S. Army, Navy, Air Force, Marine Corps, Coast Guard and Veterans Administration.

This tax exemption lured shoppers who had military purchasing privileges. Smokers who wanted to avoid the tax but did not have purchasing privileges often asked friends and relatives to purchase cigarettes for them. Retirees, among others, frequently purchased large quantities of cigarettes at an Air Force base and sold them to civilians. This led some in the Michigan government to suggest that retired military personnel be removed from the tax exemption for on-base sales.⁹⁰ An Advisory Commission on Intergovernmental Relations study found that military stores sold more cigarettes than their civilian counterparts, even after controlling for sales to everyone with purchasing privileges.⁹¹

In 1979 the NTTA decided the problem of untaxed military sales was serious enough to warrant a new committee, the Committee on Military Cigarette Sales:

In 1980 this committee was originally appointed to arrive at a conclusion relative to the projected losses of illegal sales of cigarettes from military installations. The concern of the National Tobacco Tax Association was the tremendous amount of tax dollars being lost allegedly through illegal sales from military installations. ... At a meeting of the Executive Committee of NTTA in 1979 it was unanimously agreed that we should form a special committee to look into this area of tax losses from illegal sales at military installations.

... A simple definition of these losses or what we now consider as abuses would be any "cigarettes that are purchased by an authorized person, be he active, reservist, retired, and authorized dependents that exceed those amounts that would normally be used for his personal use.

The definition is very simple and clearly states what constitutes authorized purchases. Anything above that which includes cigarettes purchased for resale in the local community or given away as a friendly gesture to neighbors, is considered an illegal purchase or abuse which results in loss of cigarette tax to the various states. It is these amounts that we are concerned with and for which this Committee was organized.⁹²

90 Leon Rothenberg, "The NTTA Survey of States' Views on the Exemption of Military Sales of Cigarettes," *Proceedings from the 49th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1975), 41.

91 *State Taxation of Military Income and Store Sales* (Washington, DC: Advisory Commission on Intergovernmental Relations, 1976), 13-16.

92 Joseph C. Iniguez, Jr., "Report of the Committee on Military Cigarette Sales," *Proceedings from the 55th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1981), 23.

The newly formed committee estimated that in 1981, Michigan lost \$186,500 in cigarette tax revenue as a result of privilege abuse on military bases.⁹³ The ACIR also estimated that in fiscal 1973, Michigan lost \$1,045,000 due to tax-exempt military sales, and a report from the U.S. General Accounting Office report estimated the loss for FY1977 at \$746,000.⁹⁴

In the late 1980s and 1990s, state and local governments raised their cigarette tax rates even further, which translated to a greater incentive for smokers to shop at military bases. State and local officials pressured the Defense Department to increase the price of cigarettes sold on military bases, hoping to offset the tax advantage. In 1996 the Pentagon partially granted the states' wish by ordering commissaries to raise cigarette prices to the level charged at post exchanges.⁹⁵ Then in 2000, the Defense Department ordered military stores to set cigarette prices at no less than 5 percent below the price in the most competitive local market.

The 1980s and C.A.T.C.H.

Even before the federal government took these steps to decrease the tax losses from military cigarette sales, these sales were not the most dire cigarette-crime problem Michigan faced. The Advisory Commission on Intergovernmental Relations stated in 1977 that as of 1975, the "high-tax states were losing approximately \$400 million to tax evasion," some of it to military bases, some to Indian reservations, some to casual smuggling, but the majority to organized crime.⁹⁶

Compared to the frenzied activity of the 1970s, the 1980s were a less eventful period in Michigan's cigarette crime history, although cigarette crime did not disappear, especially since the decade brought a 91 percent increase in the tax rate in 1982, from 11 cents to 21 cents. The tax stayed at 21 cents until 1988, when it was raised to 25 cents. Proposal A of 1994 raised the per-pack cigarette tax by 200 percent, from 25 cents to 75 cents.

The major cigarette crime-related event of the 1980s was the establishment of the Cigarette and Tobacco Central Hotline, or C.A.T.C.H., a toll-free, multi-state phone number that citizens could use to report cigarette-related crimes. The project was inspired by a series of major thefts in 1986. Manufacturers needed to contact numerous states to report the thefts, a tedious task, and eventually everyone recognized the need for a way to efficiently consolidate information on such crimes. Michigan and 13 other nearby states participated in the hotline. The initial response was tepid, leading Michigan to start offering rewards to encourage people to use the hotline. The hotline still operates today, and calling the number gets you a voicemail with the following message:

Thank you for calling the Michigan Department of Treasury tobacco violations hotline. The information you provide will not be disclosed during or after the investigation, nor will you be notified of the outcome.

⁹³ Ibid., 24.

⁹⁴ Ibid.

⁹⁵ Karen Jowers, "Butt Out: Tobacco Sales Plummet As Prices Rise," *Army Times*, October 20, 2003.

⁹⁶ John Shannon, "The Prospects for Federal Legislation Against Cigarette Smuggling," Proceedings from the 51st Annual Meetings of the National Tobacco Tax Association (Chicago: Federation of Tax Administrators, 1977), 26-7.

You may file your complaint anonymously; however, we encourage you to leave your name and telephone number in case additional information is necessary to proceed. After the tone, please provide the complete name and address of the individual or business you are reporting, and the nature of your complaint.

Michigan From 1990 to the Present

The magnitude of Michigan's smuggling problems changed with the passage of Proposal A in 1994. This referendum shifted school funding away from local property taxes, partially replacing them with a package of increases in statewide consumption taxes.⁹⁷ Included in this package was a tripling of the state cigarette tax from 25 cents to 75 cents per pack, making Michigan's the highest rate in the nation at the time.

The degree of casual cigarette smuggling — shopping just over the Michigan border — appeared to leap immediately. In the state's 1996 "Final Report of the Senate Finance Sub-Committee to Combat Cigarette Smuggling in Michigan" it was noted that in mid-1994,* the MSP conducted surveillance at just four party stores on I-69 inside Indiana and counted people from 180 Michigan-plated vehicles buying cigarettes in just four hours' time.⁹⁸

By raising the state's cigarette tax by 50 cents per pack, Proposal A enabled smugglers to drive away with as much as \$150,000 in excise taxes on every tractor-trailer load of cigarettes smuggled into the state — \$214,000 in 2008 dollars. Commercial smuggling exploded. Over the next four years, tax-paid sales began dropping, though under the new tax rate — triple the previous level — the state still raised more total revenue than it did under the previous rate.

One of the unintended consequences of the increase involved helping the "Party of God," popularly known as Hezbollah, an officially designated terrorist organization. The group had links to a cigarette smuggling ring operating in the Great Lake State.⁹⁹

The first public indictment involved two primary operatives working out of North Carolina, but they worked with contacts in Michigan who have also been accused of trafficking in illicit cigarettes and tax stamps (now required for the legal sale of cigarettes in Michigan), and for illegally supporting a terrorist organization. These accomplices were charged in separate indictments.

The two North Carolina men, Mohamad Hammoud and Mohamad Harb (pictured in Graphic 12), would purchase vanloads of cigarettes taxed at 5 cents per pack and drive them to Michigan, where taxes on each pack were (then) 75 cents per pack. The men would capture as profit the difference between what they paid

* Lindquist Avey MacDonald Baskerville, a Canadian "forensic financial investigations" firm, tells the same story in its October 1995 report "Cigarette Smuggling in the State of Michigan," but claims that the surveillance took place "on a quiet Sunday in July 1995," not 1994, as the Michigan Senate Finance Sub-Committee reports. (See "Cigarette Smuggling in the State of Michigan," Lindquist Avey MacDonald Baskerville, 17 (October 23, 1995).)

97 Michigan Department of Treasury, "Michigan's Cigarette and Tobacco Taxes 2004," October 2005, 47.

98 "Draft," *Final Report of the Senate Finance Sub-Committee to Combat Cigarette Smuggling in Michigan*, State of Michigan, 1996, 3.

99 "Country Reports on Terrorism," U.S. Department of State Office of the Coordinator for Counterterrorism, April 30, 2008, <http://www.state.gov/s/ct/rls/crt/2007/103714.htm> (accessed November 28, 2008); James A. Damask, "Cigarette Smuggling: Financing Terrorism?," *Viewpoint on Public Issues*, (Midland, Mich.: Mackinac Center for Public Policy, July 1, 2002).

and what they sold them for, less their travel expenses. According to the federal government, each trip would produce net profits of between \$3,000 and \$10,000. Graphic 13 shows Hammoud with some of the profits from his smuggling.¹⁰⁰

Graphic 12: Convicted Cigarette Smugglers Whose Profits Helped Finance Hezbollah



Hammoud

Harb

Source: U.S. Marshall's Office

Graphic 13: Mohamad Hammoud and Accomplice With Illicit Smuggling Profits



Source: "Tobacco and Terror: How Cigarette Smuggling is Funding our Enemies Abroad," report by U.S. House Committee on Homeland Security, 2008.

Hammoud and at least one of the other accomplices in the smuggling ring had connections with Lebanon's Hezbollah, which is also thought to have connections with Al Qaeda.¹⁰¹ The Federal Bureau of Investigation believes that profits from the smuggling operation were sent to Hezbollah in the form of cash and equipment that included the following:

... night-vision goggles, cameras and scopes, surveying equipment, global positioning systems, mine and metal detection equipment, video equipment, advanced aircraft analysis and design software, laptop computers, stun guns, radios, mining, drilling and blasting equipment, radars, ultrasonic dog [repellent] and laser range finders.¹⁰²

¹⁰⁰ Ibid.

¹⁰¹ U.S. Rep. Peter T. King (R-NY), Ranking Member, Tobacco and Terror: How Cigarette Smuggling is Funding our Enemies Abroad, (Washington, DC: Republican Staff of the U.S. House Committee on Homeland Security, April 2008), http://www.foxnews.com/projects/pdf/Cigarette_smuggling_042408.pdf (accessed Sept. 2, 2008); "The 9/11 Commission Report," The 9/11 Commission, 60-61, 77, 85, 241, 257, <http://govinfo.library.unt.edu/911/report/911Report.pdf> (accessed November 28, 2008).

¹⁰² Ibid.

Graphic 14: Mohamad Hammoud as a Young Man in Lebanon

Source: "Tobacco and Terror: How Cigarette Smuggling is Funding our Enemies Abroad," report by U.S. House Committee on Homeland Security, 2008.

After the Mackinac Center, a Michigan-based free-market think tank, distributed an essay that helped publicize this case in Michigan, state Sen. Joel Gougeon remarked in a WNEM Channel 5 broadcast on Aug. 15, 2002, that terrorism had not even been discussed as an issue before passing the 2002 tax hike. He added, "I acknowledge that we're making that law enforcement issue more difficult, but offsetting that is our need in the budget. ..."

One of Mohamad Hammoud's Michigan contacts was Dearborn resident Hassan Moussa Makki. In 2003, Makki admitted to giving "material support to Hezbollah" and was sentenced to more than four years in prison. Makki has been described in court paperwork as a conduit for contraband cigarettes that were part of the "Charlotte Hezbollah Cell," in which Mohamad Hammoud played a leadership role.¹⁰³

A Detroit Free Press article about the case indicated that Makki had smuggled between \$38,000 and \$72,000 worth of cigarettes to Michigan once a month for two years and personally gave more than \$2,000 to the "orphans and martyrs" program of Hezbollah.¹⁰⁴ Makki (see below) actually placed what he called a "resistance tax"¹⁰⁵ on top of his sale of illicit cartons of cigarettes, apparently ensuring customers that the money would be redirected to Hezbollah. Moreover, Makki "maintained literal and figurative containers where Hezbollah donations would be set aside for transfer to Lebanon."¹⁰⁶

Makki's indictment also revealed that he was arrested in West Virginia in 1996 with nearly 2,400 cartons of cigarettes, but by 1999 he was apparently delivering illicit cigarettes to accomplices in Michigan who were to affix counterfeit cigarette tax stamps.¹⁰⁷ Makki's 1996 arrest occurred after he was pulled over for speeding

103 United States District Court, Eastern District of Michigan. Criminal No. 03-80406, First Superseding Indictment, April 14, 2004; sent by fax to author Michael LaFaive September 19, 2008, 11.

104 David Ashenfelter, "Man admits to funding terror with Interstate cigarette-smuggling ring," *Detroit Free Press* Sept. 19, 2003, http://www.accessmylibrary.com/coms2/summary_0286-9054185_ITM (Originally accessed on the World Wide Web Feb. 19, 2004; however the Freep.com link is no longer active. Available for purchase by following the previously noted link.)

105 Criminal No. 03-80406, 14.

106 Ibid.

107 Grand Jury Indictment, United States District Court, Eastern District of Michigan Southern Division. <http://fl1.findlaw.com/news.findlaw.com/hdocs/docs/akhdar/usakhdar103ind.pdf> (accessed September 19, 2008).

and for having “a defective windshield”¹⁰⁸ in the van he was driving. This arrest also turned up \$2,571 in cash that had been intended for cigarette purchases.¹⁰⁹ At the time of his arrest Makki told his arresting officer that he was returning from Florida, where he purchased clothes for resale in Michigan.¹¹⁰

As Makki’s story indicates, being arrested does not appear to be much of a deterrent for cigarette smugglers. This is probably not the only instance of smugglers making their way into and back out of the hands of law enforcement officials only to return to their previous line of work.

It is worth noting here that in Michigan two men have *twice* been convicted of violating the Michigan Tobacco Products Tax Act between July 1, 2004, and Aug. 14, 2008. One of these men, a store owner, was investigated four times in 2004 and 2005. The first three incidents, all in 2004, resulted in seizures of tobacco products that did not have corresponding invoices and that the Michigan State Police believed were bought from unlicensed sources. The 2005 inspection of the man’s Eastpointe store resulted in confiscation of 56 cartons of cigarettes that were not supported by proper invoices.*

In December 2007, a confidential informant for the state of New York told Republican congressional staffers with the U.S. House Committee on Homeland Security:

Tobacco smugglers’ only fear is losing a load of cigarettes. We do not fear law enforcement. They will pull us over, seize the load, and maybe we get arrested; but most likely we do not. Worst case scenario, we go to jail for a couple of months before returning to the smuggling again. Think about it. A small fish like me can make \$50,000 a month working only a few hours each week. The big fish make hundreds of thousands a week, most of which goes to the Middle East in cash or trade transactions.¹¹¹

Currently before Federal District Judge Gerald E. Rosen is a case involving an alleged member of a group of Michigan-based operators who helped distribute cigarettes brought in from other states between 1996 and 2002. The defendant is accused of violating the Racketeer Influenced and Corrupt Organizations Act,[†] and the prosecution suggests the defendant worked closely with Hassan Makki in the contraband cigarette trade, although Makki is not named as a defendant in this particular case.¹¹²

Members of the gang allegedly leapt into the counterfeit stamping business after the passage of Michigan’s 1998 law requiring tax stamps. The members are also accused of working “to obtain, produce and/or distribute millions of counterfeit state cigarette stamps” for California, New York and Illinois.¹¹³

* Michigan Department of State Police, Incident Report #CTT-0000211-06(1T), October 19, 2006. The other convict’s two arrests came from incidents that were less than 18 months apart (Michigan Department of State Police, Incident Report #CTT-0000071-07, March 30, 2007; Michigan Department of State Police, Incident Report #CTT-0000275-05, October 11, 2005).

† In an interesting aside, this RICO case received a lot of media coverage when the story broke in 2004, because several of the defendants were charged with obtaining counterfeit Viagra, the drug famous for treating erectile dysfunction. Defendants were also charged with obtaining and transporting such stolen goods as Zig Zag papers for rolling cigarettes and “thousands of cartons of stolen R.J. Reynolds cigarettes from Kentucky.” (See Criminal No. 03-80406, 13.)

108 West Virginia Uniform Incident/Offense Report Form, Agency Case No.: EA-1172/1173, June 9, 1996, 9.

109 Ibid., 10.

110 Ibid., 9.

111 *Tobacco and Terror*, 9.

112 Criminal No. 03-80406, 1, 7, 9.

113 Criminal No. 03-80406, 11-12; Public Act 187 of 1997 § 6a.

So much trafficking exists for the express purpose of financing terrorist organizations alone that representative Peter T. King (R-N.Y.) asked the Republican Staff on the U.S. House Committee on Homeland Security to produce a report on the subject. In April 2008 they released “Tobacco and Terror: How Cigarette Smuggling is Funding our Enemies Abroad.”

In the report, staffers conclude that in “just two months of illicit cigarette trade operations, a motivated terrorist cell could generate sufficient funds to carry out another September 11 style attack, in which operational costs were estimated to be \$500,000.”¹¹⁴ Interstate trafficking in cigarette and smokeless tobacco products led New York State congressman Anthony Weiner to introduce federal legislation last year to help minimize the trafficking.

On Sept. 10, 2008, Weiner’s legislation, known as Prevent All Cigarette Trafficking Act, passed the U.S. House of Representatives. The legislation mandates a number of tighter controls along the supply chain and dramatically increases penalties for violations of the Jenkins Act.¹¹⁵

The smuggling-terrorism link is just one in a long series of interesting, tobacco-related crimes being committed in Michigan, California, New Jersey and elsewhere. Often, however, large-scale smugglers have no ulterior motive; they are focused solely on making large sums of money.

For instance, on Nov. 13, 2008, law enforcement officers arrested 18 people in the metro Detroit area for “trafficking 104,300 cartons of illegal cigarettes worth more than \$2 million in unpaid Michigan taxes,” according to the Detroit Free Press. The two-year investigation that led to the arrests involved the federal Bureau of Alcohol, Tobacco and Firearms and more than 150 federal, state and Detroit law enforcement officers.¹¹⁶

In a similar case in September 2008, eight people were indicted in U.S. District Court in Detroit for peddling contraband cigarettes. The operation allegedly involved the purchase of more than \$2 million in illicit cigarettes by the defendants for distribution. A Chicago Tribune story stated that some of the cigarettes had no tax stamps, while others had counterfeit stamps. According to the indictment, a portion of the cigarettes were sold from a party store in Detroit; the owner-operator of the business was also charged.¹¹⁷

114 *Tobacco and Terror*, 14.

115 Anthony Weiner, H.R. 4081 “To prevent tobacco smuggling, to ensure the collection of all tobacco taxes, and for other purposes,” (Washington, DC: United States House of Representatives, Nov. 5, 2007), <http://www.opencongress.org/bill/110-h4081/text> (accessed September 21, 2008).

116 Christoff, Chris, “Illegal smokes bring charges for 18,” *Detroit Free Press*, November 14, 2008.

117 Criminal No. 08CR-20436, 1, 10, 11; White, Ed, “Eight indicted in illegal smuggling ring,” *Chicago Tribune*, September 9, 2008.

Counterfeit Tax Stamps

Tax stamps were first mandated in Michigan by the passage of Public Act 187 of 1997. The act took effect on Dec. 30, 1997, but key provisions did not commence until September 1998.¹¹⁸ The law provided an outline for the delivery of stamps to tobacco wholesalers and others, along with such mandates as where the stamp should be placed on the cigarette pack (see Graphic 15); what percentage of the stamp must remain affixed (more than 50 percent)* to remain legitimate and a number of remedies — including imprisonment and financial penalties — for violating the law.¹¹⁹ Stamp counterfeiting is punishable by imprisonment for one to 10 years and a financial fine of as much as \$50,000.¹²⁰

Graphic 15: Michigan Tax Stamps on a Pack of Cigarettes



Source: Mackinac Center for Public Policy.

Graphic 16: A Law Enforcement Officer Checks for Cigarette Tax Stamps at a Retail Store



Source: Michigan State Police.¹²¹

* The percentage is scheduled to increase “in the near future,” according to the Michigan Department of Treasury. The new stamps will also be larger and contain a 10-digit indicia, as opposed to the current five-digit indicia, in hopes of improving law enforcement efforts. (See Michigan Department of Treasury, “Special Notice to Wholesalers, Secondary Wholesalers, Unclassified Acquirers of Cigarettes and Vending Machine Operators, August 28, 2008.”)

118 Michigan Public Acts of 1997 — No. 187, 1081.

119 Ibid., 1085.

120 Ibid., 1086.

121 Lt. Detective Judith Anderson, Michigan State Police, e-mail message to Michael LaFaive, September 11, 2008.

Michigan began using tax stamps to thwart smuggling later than did New Jersey and California, which adopted the stamps in 1948 and 1961, respectively. At the time of enacting Michigan's first cigarette tax in 1947, tax stamps were considered, but ultimately rejected as too expensive. The tax stamp idea was again advanced in the 1950s to help combat contraband trafficking, but the stamps were never adopted.¹²²

The 1997 tax stamp law had a clear impact on legitimate tax-paid sales of cigarettes. Just a quick review of the data indicates that in the 12 months leading up to the full tax stamp-related regulations, there were 719,296 packs sold legally in the state. In the 12 months after full implementation, there were 808,968 packs sold legally, an increase of 12.5 percent.*

It needs to be said that linking the simple observation of increased tobacco revenues to state tax stamps can lead to spurious conclusions. It is possible that cigarette hoarding was taking place before the stamps went into effect, that a sudden increase occurred in the popularity of other tobacco products, that manufacturers had raised their price or that some other unseen factors may have biased sales numbers higher.

In a study not yet released, University of Michigan economist Joel Slemrod finds that stamping cigarettes in Michigan did indeed have an impact on tax-paid sales and thus on revenue flowing into state coffers.¹²³ It is perhaps the effectiveness of tax stamps that have led to both the theft and the counterfeiting of state tax stamps. Following are a few anecdotes of counterfeiting and theft provided to one of the authors by the Michigan State Police in 2004 and 2008, respectively.

In a 2004 e-mail to one of the authors, a Michigan State Police spokesperson¹²⁴ wrote that the MSP received about 100 different complaints concerning counterfeit stamps in 1999, the year after the state tax stamp law took effect. Also according to the State Police:

- In January 1999, two Dearborn residents allegedly received from a mail carrier two boxes of 200 sheets of counterfeit tax stamps, with each sheet containing 192 individual tax stamps. The two were charged with a felony carrying a potential 10-year prison sentence.
- In June 1999, the federal Bureau of Alcohol, Tobacco and Firearms and the state's Tobacco Tax Enforcement Team found "959 cartons of untaxed cigarettes and 13,040 unused counterfeit stamps" during a raid on a single home.
- In September 2000, the state's Tobacco Tax Enforcement Team arrested an Ypsilanti resident for possession of 650 tax stamps that the unit believed had been stolen from a local wholesaler.¹²⁵

* Authors' calculations based on "Cigarette Sales Tax History: Calculated Packs Sold Taxed Based on Revenue Collections," Michigan Department of Treasury's Office of Revenue and Tax Analysis, September 28, 2008. The increase in sales appeared to persist independent of seasonal variations.

122 "Committee on Tax Evasion," 27th Annual Meeting, 5.

123 Joel Slemrod, "Are Tax Elasticities System-Dependent? Evidence from Michigan Cigarette Tax Policy," University of Michigan, 2007.

124 Lt. Detective Judith Anderson, Michigan State Police, e-mail to Michael LaFaive, February 25, 2004.

125 Ibid.

In response to a Freedom of Information Act request, State Police report that they “could not find any counterfeit complaints for the years 2002, 2003, and 2004.”* The 2005 data provided under the FOIA included two original reports of cigarettes with counterfeit stamps and a dozen supplemental reports of other counterfeiting activities. In one incident that occurred in August 2005, the State Police conducted a surveillance operation at a private residence. According to the police report, the operation resulted in the confiscation of 210 cartons of cigarettes with counterfeit stamps from a single van. The police also reported investigating the house and garage and finding glue guns, scissors, “approximately 2,854 counterfeit stamps” and nine additional half-cases of cigarettes that were apparently waiting to be stamped.¹²⁶

* Linda Ortiz, Michigan State Police assistant FOIA coordinator, Freedom of Information Act response letter to Michael LaFaive, October 24, 2008. As noted in the main text, this period free of complaints to the state police ended in 2005.

By 2006, the MSP was receiving more complaints about counterfeit tax stamps, and in 2007 and 2008, the department took 30 complaints of counterfeit stamps, which resulted in the seizing of more than 3,000 cartons of cigarettes.¹²⁷ For example:

- In a June 2006 inspection of a market in Taylor, almost 200 cartons and 767 packs of cigarettes were seized for having counterfeit stamps. Nine boxes of cigars were also confiscated. According to the police report, the store owner admitted that he bought the cigars and some other tobacco products “from an unknown lady who lives off of Schoenherr.”¹²⁸
- Police seized 42 packs of cigarettes with counterfeit stamps from a Detroit-area dollar store in November 2007. The store owner claimed that the cigarettes were purchased by the previous owner of the store.¹²⁹

Other incidents may have occurred that are not included in the MSP reports. Other Michigan law enforcement agencies can also seize illegal tobacco products, and arrests for Michigan-related cigarette smuggling may be made outside the state during this time.

Graphic 17: Illicit Cigarettes From Police Seizure (Left) Awaiting Tax Stamps (Right)



Source: Michigan State Police

126 Michigan Department of State Police, Incident Report #CTT-0000250-05 (TT), August 22, 2005, 1.

127 Anderson, e-mail to LaFaive, September 11, 2008.

128 Michigan Department of State Police, Incident Report #CTT-0000101-06 (TT), June 12, 2006, 1-2.

129 Michigan Department of State Police, Incident Report #CTT-0000238-07 (TT), November 15, 2007, 1-2.

Theft

The extraordinary profits that can be made in trafficking illegal cigarettes have led to brazen attempts to steal them. Consider the following three examples.

- In October 2002, almost \$10,000 worth of cigarettes and other tobacco products was stolen from a cage on the floor of a Sam's Club in Port Huron during store hours by an unknown number of thieves (though one witness reports the possibility of two or three). The cage itself was locked, but the cigarettes were accessed by cutting through the fence. In order to exit the store without getting caught, the thieves cut open a large box in another aisle that contained a recliner, removed the recliner, placed the cigarettes inside, and took the box to a Sam's Club cashier, who scanned the "recliner" label and completed the transaction.¹³⁰ Adding to the drama is that a Sam's Club employee unwittingly helped the thieves escort the box to the truck that carried away the stolen cigarettes. According to the store manager, cigarettes had been stolen in a similar manner at two other stores.¹³¹

An audit of the cage contents indicated that the thieves made off with everything from more than 180 cartons of cigarettes to wintergreen-flavored Skoal chewing tobacco and a single carton of Zig Zag papers.¹³²

The tobacco cage at Sam's Club in Port Huron is now kept in safe sight of store cashiers and other employees, as is evident from this photo.

Graphic 18: Caged Cigarette Area at Port Huron Sam's Club



Source: Mackinac Center for Public Policy

- Also in October 2002, according to the Detroit Free Press, police got wind of a planned break-in at a tobacco shop in Macomb Township. For six hours,

130 St. Clair County Sheriff's Office Complaint. Incident number 02-31758; File Class 3000-2; Port Huron Twp. 10-05-02.

131 Ibid., 3.

132 Ibid., 7-8.

officers watched four men equipped with a police scanner and two-way radios carefully disable the store's security system and enter the business. Ignoring the cash, the men reportedly loaded \$65,000 worth of tobacco products into a truck before being apprehended by police.¹³³

- On Aug. 12, 2003, the owner of a convenience store in Dearborn found himself the victim of such an attack. At 5:00 in the morning, a man walked into the store and told the owner that he was armed and would kill him if he did not cooperate. The robber pulled out a garbage bag, stuffed cartons of cigarettes into it and fled in a pick-up truck. Police later caught up with the man, who attempted to run them down with his truck. Police responded by firing shots and then pursuing and ultimately killing him.¹³⁴

Retail theft is not the only concern that law enforcement officials and businesspeople have. Wholesalers are often targets too. In October 2004, for instance, a semi-trailer of cigarettes was hijacked in Washtenaw County. The driver of the trailer was blindfolded and pistol-whipped during the ordeal but survived.¹³⁵ Arrests were made in this case in 2008.¹³⁶

Martin & Snyder Product Sales, the only remaining cigarette wholesaler in the city of Detroit, has on more than one occasion been robbed by thieves who spent a night with a sledge hammer breaking through the brick wall of the company's warehouse (see Graphic 19). The wall in question is also surrounded by a high perimeter fence and is well-lit, according to George Daiza, co-owner of the company.

Graphic 19: The Repaired Warehouse Wall of Martin & Snyder Product Sales in Detroit



Source: Mackinac Center for Public Policy

Daiza began working for the company in the early 1980s.¹³⁷ He says that while the wholesaler has long faced troubles associated with local criminal activity, it was not until 1994, when cigarette taxes jumped from 25 cents per pack to 75 cents per pack, that the expense and danger surrounding his work as a tobacco wholesaler escalated dramatically.¹³⁸

133 Mary Owen, "Tobacco Thieves Are Caught in the Act," *Detroit Free Press*, October 23, 2002.

134 Niraj Warikoo, "Dearborn Cop Kills Robbery Suspect," *Detroit Free Press*, August 13, 2003, 2B.

135 Michael LaFaive, "Smoke and Terrors," Mackinac Center for Public Policy, <http://www.mackinac.org/article.aspx?ID=7151>, accessed November 23, 2008.

136 Susan E. Gillooly, Assistant United States Attorney, USAO-Eastern District of Michigan, telephone interview with Michael LaFaive, November 25, 2008.

137 George Daiza, co-owner of Martin & Snyder Products Sales, interview by author Michael LaFaive, February 12, 2008.

138 Ibid.

According to Daiza, in 2005 two of M&S's trucks on separate occasions were hijacked in the Detroit metropolitan area, and the drivers were held at gunpoint and then left tied up. The regular drivers approached Daiza and the other owners and expressed their fear of working in an environment in which the cargo they hauled might lead to injury or death. Martin & Snyder responded by hiring the Threat Management Group, a security team that protected wholesaler's drivers and cargo.¹³⁹

Consider Daiza's description of the lengths M&S and TMG went to in order to ensure the safety of M&S employees and property.¹⁴⁰ Before deliveries were dispatched, as many as 12 armed security guards — and sometimes a trained dog — maintained a clear and obvious presence by milling around in the M&S parking lot. The purpose was to send a message to anyone reconnoitering the compound and its delivery traffic. Up to six Martin & Snyder trucks are sometimes sent out at once, including an empty decoy truck with a single driver.¹⁴¹

The other trucks with real shipments carried armed TMG guards and were followed by a TMG vehicle with an armed guard and a camera that would broadcast live video over the Internet for Martin & Snyder owners to watch from the confines of their office.¹⁴²

Once the convoy reached a certain point in the city, each of the trucks broke in different directions and drove to their destinations, which could include deliveries as far north as Saginaw and as far south as Ohio. Moreover, delivery schedules were changed frequently, so that would-be hijackers would never catch the trucks on a fixed schedule.¹⁴³

Smaller Thefts and Violence

Martin & Snyder also has customers who need to fear theft and violence because they pick up their own products at the warehouse in "cash-and-carry" business transactions. In August 2005, one customer of Martin & Snyder was hijacked after making a purchase of tobacco products from the wholesaler. His automobile and cigarettes were stolen, and he was shot three times. While the customer survived the shooting and remains a customer of Martin & Snyder, the shooting cost him a kidney.¹⁴⁴

Even gas stations have become locations of cigarette-related violence. For instance, in the early morning hours of April 8, 2002, a Farmington Hills police officer, in uniform but sitting in an unmarked car, saw a man break a window and steal 250 packs of cigarettes from a gas station. Sighting the officer's uniform, the man rammed the driver's side of the officer's cruiser as he attempted to get away. The officer escaped from his car and attempted to stop the suspect from leaving by reaching for the suspect's car keys. The thief began to drive off, and the officer was dragged about 20 feet before falling clear. The suspect escaped, but was later

139 Ibid.

140 Ibid.

141 Ibid.

142 Ibid.

143 Ibid.

144 Ibid.

captured.¹⁴⁵ Police identified the suspect as a drug addict “committing smash-and-grab burglaries to sustain his habit — trading the cigarettes for crack.”¹⁴⁶

POP CULTURE

So common is cigarette smuggling and related theft in Michigan that the practice has entered American pop culture. Eddie Murphy’s 1984 smash hit “Beverly Hills Cop” and Will Ferrell’s 2007 “Blades of Glory” both make Michigan-specific references to smuggling cigarettes.

One scene from “Beverly Hills Cop” actually shows Murphy’s character, a Detroit detective working undercover, discussing the value of his stolen cigarettes, which he carefully points out already display the government tax stamp. In another scene Murphy’s boss asks him where he obtained the truckload of cigarettes to run his sting, and Murphy’s response is “from the Dearborn hijacking,” making the case that life does imitate art on occasion.[†]

In the comedy “Blades of Glory,” a narrator tells the audience that the character Chazz Michael Michaels was “spawned in the hell fires of Motown” and “at age 12 Chazz escaped the life of running cigarettes and illegal fireworks” in Detroit.

Another popular technique or “channel” for trafficking in contraband cigarettes by individual store owners is to acquire untaxed cigarettes and then sell them illegally as single sticks for 50 cents each. This eliminates the need for counterfeit stamps and can produce gross profits of \$10 per pack. It is probably harder to move higher volumes, but the potential profits involved still make trade in single sticks worthwhile for many. One of the authors has even seen a sign posted in a Flint Township convenience store pre-emptively warning that no single cigarette sales are made there.¹⁴⁷

A February 2007 incident report from the Michigan State Police contains an amusing example of single sale cigarettes. A police investigation of a convenience store uncovered 34 cartons and 23 packs of cigarettes with counterfeit stamps. The police also uncovered a box of roughly 35 cigarettes, which the owner admitted to selling as single sticks. According to the police report, the suspect “dismissed it as no big deal” when the police officer explained to him that such single-stick sales were illegal.¹⁴⁸

On March 14, 2008, the Detroit Free Press reported that in 2007, the state arrested more than 41 people and seized 4,700 cartons of cigarettes, resulting in penalties and fines of \$1.8 million.¹⁴⁹ The story relates how one store owner visited by the state’s Southeastern Tobacco Tax Team (a unit of the Michigan State Police) possessed no illicit cigarettes or other tobacco products but was selling single sticks and was duly ticketed. The story continues:

Earlier that day, the unit inspected two Detroit gas stations and found no illegal tobacco. One station owner said he has been approached by people offering to sell him illegal, cheap cigarettes out of vans or cars. “I don’t need trouble. For what, to save \$1 or \$2?” [he] said, ... though he would not divulge the identity of the sellers. [His] store was ticketed for selling individual cigarettes to customers, a civil infraction. [Lt. Detective Judith] Anderson [of the Michigan State Police] said

* We interviewed Beverly Hills Cop screenwriter Dan Petry, curious as to why illicit cigarettes and Dearborn were cited in the movie. Petry does not recall what led him to reference Dearborn but explained that while growing up on the East Coast, he had frequently heard of truck hijackings and illegal cigarette sales. Moreover, for the opening chase scene, cigarettes were convenient stolen property, as the Murphy character could be thrown around the truck without suffering injuries from, say, falling televisions.

† Another movie with a significant stolen cigarette scene is the 1990 mobster movie “Goodfellas,” starring Ray Liotta. The mob’s role in reselling stolen goods is legendary. One of the first police arrests of John “Teflon Don” Gotti in 1968 was over his hijacking a truck carrying \$50,000 (about \$310,000 today) in cigarettes on the New Jersey Turnpike.

145 John Masson, “Cop is Hit, Dragged, But Man is Caught,” *Detroit Free Press*, April 8, 2002, 4B.

146 Ibid.

147 Personal observation of Michael LaFaive, June 7, 2008.

148 Michigan Department of State Police, Incident Report #CTT-0000042-07 (TT), February 14, 2007, 2.

149 Chris Christoff, “Michigan’s \$140 million smuggling Problem: Illegal Tobacco Sales Hurt State,” *Detroit Free Press*, March 14, 2008.

smugglers hurt legitimate businesses that lose customers to cheaper cigarettes sold by cheating competitors. She said her crew deters some smuggling and added, “Retailers know we’re out there.”¹⁵⁰

Anderson is probably right: Most retailers do know, but evidence indicates that many are taking their chances anyway. The state’s five-member Southeastern Tobacco Tax Team must combat large numbers of casual and large-scale smugglers working to undermine state law. The team does rely on contributions from other law enforcement agencies.

Internet Sales

Internet sales remain another channel through which smokers acquire tobacco products. This has been a less expensive avenue for some seeking to escape payment of a state excise tax. According to the anti-smoking advocacy group “Campaign for Tobacco Free Kids,” there were more than 700 Internet sites selling cigarettes to American consumers in 2006.

A report from Prudential Securities estimated that about 3 percent of all cigarettes sold in 2002 were acquired over the Internet.¹⁵¹ A forthcoming paper by economists Austan Goolsbee, Michael Lovenheim and Joel Slemrod, however, concludes that governments will probably find that their ability to raise revenue through cigarette tax hikes is undermined by Internet cigarette sales.¹⁵²

The potential of revenue losses from World Wide Web transactions have not been lost on state treasury officials. In Michigan the state began cracking down on online purchases in early 2005. Terry Stanton, spokesman for the Michigan Department of Treasury, reports that from February 2005 through August 2008, more than 23,000 people have been identified by the Treasury Department as having purchased cigarettes online.

According to Stanton, the purchases had a total tax liability of more than \$36 million. That is a tobacco tax liability exceeding \$1,500 per person. Stanton also reports a significant drop in online sales and argues that “purchasing un-stamped/untaxed cigarettes from un-licensed sources is illegal ... has been heard.”¹⁵³

Conclusion

Michigan’s experience with high state cigarette taxes provides ample evidence that tax differences between states can prompt large-scale commercial smuggling and ancillary violent crime. New Jersey’s and California’s experiences, though they are half-way across the country from Michigan, show a similar dynamic, though we will not repeat the level of detail and number of examples that we did in Michigan.

150 Ibid.

151 “Indian Sales of Tobacco Face New Pressure,” *New York Times*, http://www.nytimes.com/2004/09/26/business/26smoke.html?_r=1&scp=1&sq=indian%20sales%20of%20tobacco&st=cse, September 26, 2004.

152 Austan Goolsbee, Michael Lovenheim, and Joel Slemrod, “Playing with Fire: Cigarettes, Taxes, and Competition from the Internet,” University of Michigan Office of Tax Policy Research, August 29, 2007.

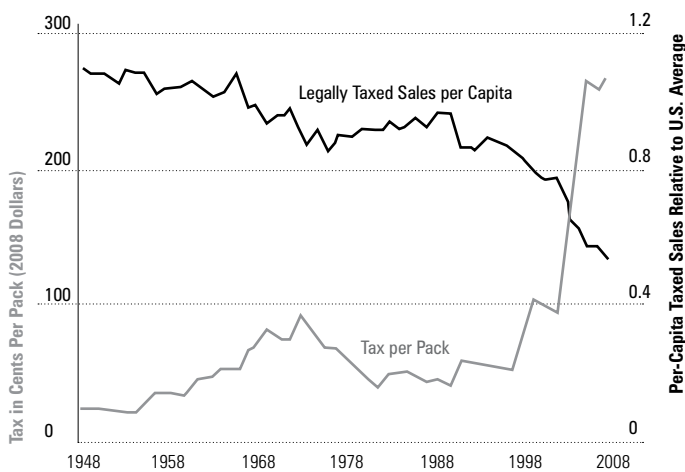
153 Terry Stanton (Michigan Department of Treasury) e-mail message to author Michael LaFaive, September 24, 2008.

Case Study: New Jersey

Since first enacting a 3-cent tax per pack in 1948, New Jersey has raised the state tax 16 times. The state has greatly accelerated its pace of tax increases during the past decade, raising the rate four times in the last six years, from 80 cents per pack to \$2.575 per pack.¹⁵⁴ In November 2008, New Jersey's state cigarette tax rate was the second highest in the nation.

As the New Jersey tax rate has risen, the number of legally taxed packs sold in New Jersey has dropped precipitously, and this correlation is strong throughout the history of New Jersey's tobacco tax (see Graphic 20). This trend has led the state to report that its tax increases have caused smoking to drop. There is evidence, however, that this decline is at least partly due to smokers' finding cigarettes that have escaped New Jersey taxes.

Graphic 20: The Inverse Relationship Between New Jersey's Cigarette Tax Rate and Legally Taxed Sales, 1948-2008



Source: Census Bureau; National Tobacco Tax Association; Fiscal Economics.

The Many Ways of Finding a Tobacco Bargain

“Bargain” cigarettes are usually cigarettes that have evaded some taxes. The road to a bargain has traditionally led smokers across a border, whether a state border, an international border or the border of a military base or an Indian reservation.

As in Michigan, some of New Jersey's cross-border activity is mere bargain-hunting by consumers who may not even know they are breaking the law. Others are fully aware they are breaking the law, however, and the result is less innocent. As the president of the Eastern Seaboard Cigarette Tax Enforcement Group, Philip Salafia, explained to his colleagues in 1976:

¹⁵⁴ *The Tax Burden on Tobacco*, 2007.

Cigarette smuggling has been referred to as a non-predatory crime or a victimless crime. We in law enforcement must stress, however, that the crimes that accompany cigarette smuggling, the murders, extortions, and hijackings, are not victimless crimes. ...¹⁵⁵

Thirty years later, the problem is considerably worse, particularly in New Jersey.

New Jersey's Tax Differentials With Surrounding States

In 2008, seven Eastern states and the District of Columbia levy a tax of at least \$2 per pack. Connecticut, Maryland and Maine charge exactly \$2; Rhode Island's rate is \$2.46, New Jersey's is \$2.575 and New York state's excise tax is \$2.75.

These high-tax states are not an especially long drive from states with comparatively modest taxes: West Virginia, Illinois and Indiana have state-level tax rates between 50 cents and \$1.00 per pack while New Hampshire, Ohio, Delaware and Pennsylvania have rates between \$1.00 and \$1.50. And of course there are the truly low-tax states in the south — Kentucky, North Carolina, South Carolina, Virginia, Mississippi, Alabama and Georgia — all of which have rates lower than 50 cents.

These cigarette smugglers can be syndicates or small operations. Commercial smugglers with enough capital and connections can bring in millions of cartons by truck or ship, buying them wherever they can obtain inexpensive cartons in quantity — sometimes on a reservation, sometimes in a low-tax tobacco state and sometimes abroad, where even the federal tax can be avoided. In all cases, their profits are maximized when the tax differential between the sites of purchase and sale is large. That makes New Jersey a premier destination for smugglers.

New Jersey's Seven Decades of Tobacco Taxation

At one time or another in the past 70 years, New Jersey has held every position in the cigarette market: tax-exempt supplier of cigarettes to other states, moderate-tax state with only minor law enforcement problems; high-tax state discovering the problems of cigarette tax evasion; once again a moderate-tax state that had let other states surpass it with tax hikes; and finally, at present, the state with the second-highest tax rate, some of the worst crime and the second-most tax revenue lost to smuggling.

155 Philip M. Salafia, "Cigarette Smuggling on the East Coast," in *Proceedings of the 50th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1976), 79.

Graphic 21: New Jersey Cigarette Excise Tax Rates Since 1948

When Tax Applied	Tax Per Pack
July 1, 1948 — March 31, 1956	3¢
April 1, 1956 — January 5, 1961	5¢
January 6, 1961 — May 22, 1961	6¢
May 23, 1961 — May 31, 1963	7¢
June 1, 1963 — June 15, 1966	8¢
June 16, 1966 — June 3, 1968	11¢
June 4, 1968 — May 15, 1972	14¢
May 16, 1972 — June 17, 1982	19¢
June 18, 1982 — June 30, 1983*	24¢
July 1, 1983 — June 30, 1987	25¢
July 1, 1987 — June 30, 1990 [‡]	27¢
July 1, 1990 — December 31, 1997	40¢
January 1, 1998 — June 30, 2002	80¢
July 1, 2002 — June 30, 2003	\$1.50
July 1, 2003 — June 30, 2004	\$2.05
July 1, 2004 — June 30, 2006	\$2.40
July 1, 2006 — Present	\$2.575

Source: Orzechowski & Walker. * Indicates when the surtax escalator was enacted. ‡ Indicates when the surtax escalator was repealed.

A Key Supplier of Cigarettes to Other States During the 1940s

In 1938, New York City’s government enacted a temporary 1-cent tax on a pack of cigarettes that at the time cost about 15 cents. Evidence emerged quickly that the tax was creating unintended consequences. Its city residents started shopping in New Jersey; bootleggers started shipping from New Jersey; and there was a surge of ancillary crime in both places.¹⁵⁶

New York state nonetheless followed the city’s example and enacted its own tax in 1939. Meanwhile, the city let its temporary tax expire, but the state tax kept the smugglers in business until New Jersey enacted a tax in 1948. During this decade, New Jersey was a pariah — the exporter of low-tax or untaxed cigarettes.¹⁵⁷

As Amos Tilton, state supervisor of the Cigarette Tax Bureau in New Jersey’s Department of the Treasury, reminded his colleagues in 1949, one year after enactment of the New Jersey tax:

While the Garden State grew no tobacco, it did grow a weed far more obnoxious to our immediate sister states and to a lesser but annoying degree to states as far west as the Mississippi River. I refer, of course, to the New Jersey cigarette mail order business and to the owners of gasoline service stations and other establishments which sold cigarettes to out-of-state motorists anxious to beat the tax in their own states of residence — and what could be more human!¹⁵⁸

¹⁵⁶ “Mayor Cannot Veto Relief Inquiry, Its Sponsors in Council Contend,” *New York Times*, June 16, 1938, 1; “Storekeepers Fined under City Tax Law,” *New York Times*, August 4, 1938, 29; “Fined for Untaxed Cigarettes,” *New York Times*, August 10, 1938, 3; “6 Suspended in Theft of City Tax Stamps,” *New York Times*, September 1, 1938, 24; Louis H. Fuess, “Tobacco Tax Enforcement Problems—Urban Areas,” in *Proceedings of the 15th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1941), 15.

¹⁵⁷ “Cigarette Peddlers Throng Jersey Roads; Tax-Beaters Curbed as Traffic Hazard,” *New York Times*, July 19, 1939, 1; “New Jersey’s Gift to New York Cigarette Smokers,” *New York Times*, July 20, 1939, 13; “Cigarette Peddlers Facing Federal Ban,” *New York Times*, July 20, 1939, 13; “Dewey Plans to Curb Cigarette Imports,” *New York Times*, July 21, 1939, 5; “City to Prosecute Cigarette Evaders,” *New York Times*, July 28, 1939, 19; “Englewood to Oust Cigarette Vendors,” *New York Times*, August 4, 1939, 11; “State Cigarette Tax Yield Falling Short; Leaders Blame City Levy for Small Return,” *New York Times*, August 13, 1939, 22; “State Tax Fraud Charged against 4,” *New York Times*, January 25, 1942, 35; Louis H. Fuess, “Round Table Discussion,” in *Proceedings of the 14th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1940), 11; Louis H. Fuess, “Checking Common Carrier Shipments of Cigarettes,” in *Proceedings of the 15th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1941), 4; Mary G. Krone discussing Henry F. Long, “Control of the Sale of Cigarettes in Interstate Commerce,” in *Proceedings of the 19th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1945), 11.

¹⁵⁸ “The Unfair Cigarette Sales Act in New Jersey,” in *Proceedings of the 23rd Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1949), 5.

The adoption of New Jersey's 3-cent tax per pack in 1948 (see Graphic 21) coincided with New York's 3-cent tax, increased that year from 1 cent. That identical tax burden should have brought the trafficking of cigarettes between those two states to a halt by eliminating the profit motive. However, that same year New Jersey followed the example of Massachusetts and a few other states in enacting a minimum-price law that prevented retailers from selling cigarettes below a certain price. The law was based on the idea that discount stores were somehow damaging the market, but the price floor acted like another, higher tax. Instead of plaguing other states' tax administrators with untaxed cigarettes, New Jersey became a destination for smugglers importing cheaper out-of-state cigarettes that could be resold more profitably at the elevated minimum price.

Organized Crime Complicates Tax Administration in the 1950s

In the 1950s, organized crime became heavily involved in cigarette smuggling, and emissaries from New York City's law enforcement community conveyed their painfully learned lessons to other states in the region. Beefed-up surveillance and interstate communication began in earnest.

New Jersey arrested many bootleggers, some intending to distribute in New Jersey and some just passing through from the tobacco states to New England or Canada. In 1951, for example, Maryland police observed a tractor-trailer truck loading up cases of cigarettes near the Delaware border and radioed up to New Jersey authorities that a suspicious truck might be coming north. New Jersey officers stationed themselves on their side of the new Delaware Memorial Bridge and stopped the truck.¹⁵⁹ The driver had none of the required paperwork for the 483 cases he was carrying, a load then worth \$36,000 — about \$295,000 in today's dollars.

With more auditing and enforcement, smugglers realized that selling cigarettes in New Jersey with a different state's tax stamp was increasingly dangerous, so the business of counterfeit tax stamps boomed. By 1955, authorities were recognizing that despite increasingly frequent arrests and large seizures, most contraband was getting through, and counterfeiting was one of the reasons. Tilton, still New Jersey's top cigarette tax official and president of the National Tobacco Tax Association, told his NTTA colleagues:

We still have with us ... the problem of smuggling of cigarettes in sizeable quantities across state lines from tax-free to cigarette tax states, which in turn leads to counterfeiting. Perhaps this might be said to be the major problem in evasion presently facing us.¹⁶⁰

And during that same meeting of the NTTA, the Committee on Tax Evasion emphasized that tax-free states, of which there were seven at the time, were not the only problem.

159 "Tax Increases and Price Ceilings," in *Proceedings of the 25th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1951), 31.

160 "Presidential Message," in *Proceedings of the 29th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1955), 4.

A tax evasion problem becomes more acute in states that recently have seen cigarette tax rates increased. The [tax] administrator must face not only the possibility of smuggling from non-taxing states but from adjacent states with tax rates that are from one cent to several cents lower.¹⁶¹

While smugglers improved their counterfeiting operations, thefts of unstamped and legally stamped, tax-paid cigarettes along the distribution chain became more frequent during the late 1950s. These “leakages” occurred at distributors, on trucks and in retail stores.¹⁶²

Tax Hikes During the 1960s and Early 1970s

New Jersey raised its cigarette tax five times during the 1960s, starting the decade with a tax rate of 5 cents per pack and eventually reaching 14 cents. The Legislature changed the tax rate so often that tobacco tax administrators stopped printing the rate on each tax stamp.

At the same time, legally taxed sales dropped, largely because smuggling was on the rise. And indeed, with increasing frequency authorities caught individuals who had gone to North Carolina and stuffed their cars with as many cartons of cigarettes as they could. If the smugglers were caught, the punishment was not steep: usually confiscation of the cigarettes and possibly the vehicle, too, with a fine or probation.¹⁶³

The inventory of seized cigarettes that New Jersey’s police accumulated had been given to prisons, welfare agencies and other state institutions throughout the 1950s, but by the mid-1960s, the volume of arrests and confiscations was now so great that New Jersey’s state institutions could no longer smoke them all.¹⁶⁴

North Carolina was still selling unstamped, untaxed cigarettes in the 1960s, and when agents from Connecticut or New Jersey attempted surveillance of smugglers there, hoping to record license plate numbers as vehicles headed north from cigarette wholesalers, they ran into trouble. According to a contemporaneous report from the National Tobacco Tax Association, tax administrators who had no police powers were sometimes run off the road and sometimes threatened with shotguns. Usually they were quickly identified by the locals and laughed at, prompting agents to wonder who was watching whom.*¹⁶⁵

By the early 1970s, defeatism was in the air. States refused to add more enforcement personnel, and tax administrators were admitting that two trends were combining to make their efforts nearly futile: Interstate smuggling over the roads was extremely easy, and ever-higher taxes increased both the profit motive for professional smugglers and the bargain-hunting motive for casual smugglers. The source of many illegal, interstate shipments continued to be North Carolina, from which cigarettes were known to be coming not only by truck and car, but

* Tax administrators would be granted the authority to carry weapons and make arrests in 1973.

161 “Reports on Standing Committees — Committee on Tax Evasion,” in *Proceedings of the 29th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1955), 5.

162 “Distributors and Tax Administrators in Partnership,” in *Proceedings of the 30th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1956), 35; and “Consumer Deduction Amendments,” in *Proceedings of the 31st Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1957), 20.

163 “Enforcement Actions,” in *Proceedings of the 39th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1965), 6.

164 “Annual Meeting of the Manufacturers’ Activities Committee,” in *Proceedings of the 40th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1966), 5.

165 “Organized Investigations and Police Cooperation,” in *Proceedings of the 40th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1966), 46-48.

by boat, camper, airplane and every other imaginable vehicle.¹⁶⁶ Military bases and veterans' hospitals were emerging as another source of tax-exempt cigarettes, with sales figures per capita many times higher on the base than off of it.

As Albert Baytel, a supervisor in New Jersey State Department of Taxation put it in late 1971:

When I was coming down to this conference, I thought about a chart in our office which shows the tax enforcement problem in New Jersey and the accomplishments. However, when I look at this particular chart, I see that since 1964, we have been doing nothing more than apprehending people, the illegal transporters, at a rate of roughly 100 a year. This is excellent as far as performance goes, but one also has to realize that if we are doing this constantly year in and year out, we are really not solving the problem.¹⁶⁷

Measured by arrests and seizure of cigarettes, New Jersey had the second worst problem. New York continued to be the most powerful magnet for smugglers and the jurisdiction with the most arrests.¹⁶⁸ During this era, administrators noted the theft of stamping machines by counterfeiters and a surge in truck hijackings so alarming that insurance companies started canceling theft policies on cigarette trucks.¹⁶⁹ Tax officials attending National Tobacco Tax Association meetings acknowledged that they tended to understate the tax evasion and lost revenue in their official reports.¹⁷⁰

Two Decades of Relative Calm: The Late 1970s Through the Late 1990s

Looking at the data in retrospect, by the mid-1970s the absence of any tax increase since 1972 seems to have improved the situation in New Jersey. Legally taxed sales were holding steady.

However, judging by the tone of the tax administrators' testimony at the time, strong measures were needed, mainly in law enforcement. Tax administrators were given police powers in 1973.¹⁷¹ In 1974, seven mid-Atlantic states officially formed the Eastern Seaboard Interstate Cigarette Tax Enforcement Group to respond to the growth of organized crime in the industry and to expand surveillance of suppliers in North Carolina and other low-tax states.¹⁷² And in 1975, New Jersey started teaching counter-smuggling techniques to local police in the Southern part of the state.

There was both anecdotal and academic support for their alarm. The seven mid-Atlantic states had seized almost a million cartons in a little over two years, and in 1977, the Advisory Commission on Intergovernmental Relations, a think tank created by Congress, published "Cigarette Bootlegging: A State and Federal Responsibility." The study concluded that state tax differentials were the major underlying cause of cigarette tax evasion and bootlegging, and that enforcement

166 "Report of the Committee on Tax Evasion," in *Proceedings of the 45th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1971), 2-3.

167 "Enforcement Activities," in *Proceedings of the 45th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1971), 28.

168 "Report of Committee on Tax Evasion," in *Proceedings of the 41st Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1967), 14.

169 "Stolen and Hijacked Cigarettes," in *Proceedings of the 43rd Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1969), 31-32.

170 "Report of Committee on Tax Evasion," *41st Annual Meetings*, 14.

171 "Presidential Address," in *Proceedings of the 47th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1973), 29.

172 Philip M. Salafia, "The Eastern Seaboard Interstate Cigarette Tax Enforcement Group," *Proceedings of the 49th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1975), 42.

actions to date had been ineffective. It identified “a serious problem” in 14 states and “a moderate problem” in another eight states. New Jersey was among the states with the most serious crime problems and the most lost tax revenue.

The study’s substantive recommendations echoed the get-tough sentiments of state tax administrators: The federal government should tax military and Indian sales; make interstate transportation of cigarettes a felony; and state governments should hire more personnel and enact harsher penalties for those caught. John Shannon, ACIR assistant director, commented in testimony about the report: “Some of the testimony before our committee indicated how serious and how ruthless the organized crime infiltration of bootlegging had become, especially in New Jersey and New York.”¹⁷³

The ACIR study discussed tax differentials at length, but shied away from explicitly recommending that high-tax states cut their rates to reduce the smugglers’ incentive. Most of the states, however, did get the word from their overwhelmed tax administrators, either directly or through this study, that the crime was tax-induced.

USING THE INTERNET TO THWART CIGARETTE THEFT

Thanks to security cameras in convenience stores, the public can use the Internet to review cigarette crimes and help find suspects. One blurry surveillance video posted on Aug. 14, 2008, comes from a news broadcast courtesy of NBC in Toledo, Ohio. The segment is titled, “Watch man steal cigarettes over BP clerk’s body” (see <http://www.nbc24.com/news/video.aspx?id=175082>, accessed Nov. 23, 2008). The cigarette thief was not the murderer, but walked in on a dying or deceased clerk and stole cigarettes from behind the counter, instead of helping.

Cigarettes — probably due to their high street value — are almost as valuable and liquid as cash to these thieves. Cigarettes’ value as contraband is on display in two typical videos, one from Oklahoma and one from Ontario. In Oklahoma, the video clearly shows one man of a three-man team making a beeline for the cigarettes held behind the store counter during an ATM heist (see “With video release, police hope for clues in ATM theft,” *The Oklahoman*, <http://newsok.com/article/3301483/>, accessed Nov. 23, 2008). The second video, from Ontario, Canada, shows a typical “smash and grab.” The robber breaks a window, setting off an alarm, seizes both cash and cigarettes, and departs in under one minute (see “Man steals Cash, Cash register and cigarettes in under a minute,” *LiveLeak*, http://www.liveleak.com/view?i=e5f_1204661179, accessed Nov. 23, 2008).

Many of the harsher legal penalties and expensive law enforcement changes ACIR recommended came to pass. New Jersey increased its enforcement staff by 50 percent by 1978, and in 1980 the state began fingerprinting people in the cigarette distribution business.¹⁷⁴

By the early 1980s, New Jersey had refrained from raising its rate for a decade, as had many other states. There was almost nothing good about the high inflation that prevailed in the 1970s, but it did cut into the profit of bootleggers, pushing up the price of tobacco and reducing the economic incentive for customers to seek out low-tax cigarettes and for smugglers to bring them in.

173 “Alternative Solutions to Cigarette Bootlegging: ACIR’s Evaluation,” in *Proceedings of the 52nd Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1978), 25-27.

174 “Report of the Committee on Legislation and Legal Activities,” in *Proceedings of the 54th Annual Meeting of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1990), 49, 52.

New Jersey raised the tax twice in quick succession during the summers of 1982 and 1983, and again in 1987, but all were comparatively small increases, so the economic impact of the tax, accounting for inflation, continued to fall through the 1980s. This probably accounts for much of the era's stable and even slowly growing legally taxed sales.

The Last 10 Years: Tax Hikes and Internet Shopping

A mild recession during the early 1990s tightened state budgets, and so a new round of state and local cigarette excise tax increases commenced, and it continues to this day. New Jersey acted in 1990, bumping its rate up from 27 cents to 40 cents, but then it held that rate until 1998 when it doubled its rate to 80 cents.

That started a vicious cycle of tax hikes and illegal sales. Since 1998, tax hikes have boosted the price of cigarettes in New Jersey to approximately \$6.50 per pack, higher than in many other states and nations. The state has persisted in its minimum-price laws, setting the price for every brand. In addition to the state's 1998 jump to 80 cents per pack, New Jersey joined 45 other states in a "Master Settlement Agreement" with the four largest tobacco manufacturers,* adding roughly another 45 cents to the price of each pack. Importantly, this new levy brought the United States into the sights of international smugglers, whose cigarettes, purchased abroad, could evade the MSA and other federal taxes, not just the state-level taxes that domestic interstate smugglers evaded.

The last four years have witnessed an unprecedented number of tax increases in New Jersey, and legally taxed sales have dropped like a rock. From 80 cents in 1998, the state tax has jumped to \$1.50, then \$2.05, then \$2.40 and finally \$2.575. With the highest rate in the nation, and with ports wide open to world trade, these taxes have made New Jersey a place where smugglers from all over the world are bringing millions of untaxed packs of cigarettes.†

Moreover, online ordering has established a new link between the smuggler and the consumer. One need only visit www.cigbuynow.com to see the site's promise: "We can 100% assure you, we do not report any information about our customers to any authorities."¹⁷⁵ The "Cheap Cigarettes Sale" Web site answers the question "How is my personal information protected?" by stating: "We do not sell our client list to anyone, at any price. And we do not give customers' information to any governmental organization for any reasons."¹⁷⁶ A similar "frequently asked question" is answered by the K2Smokes Web site with a more detailed answer:

We are required by law to treat all personal information according to the Swiss Data Protection Act, Article 12, Paragraph 3. This requires that under all circumstances, consumer data CANNOT BE DISCLOSED to any entity, individual, corporation, foreign government or foreign government authority regardless of claim.¹⁷⁷ (The emphasis appears in the original.)

* In the 1990s, many state attorneys general sued tobacco companies for compensation for the alleged impact of residents' cigarette use on state health care costs. These lawsuits led in 1998 to an out-of-court settlement, known as the "Master Settlement Agreement," between 46 American states and the major tobacco manufacturers.

† New York subsequently leapfrogged New Jersey by hiking its rate to \$2.75 per pack.

175 "Frequently Asked Questions," CigBuyNow.com, <http://www.cigbuynow.com/faq.php> (accessed November 23, 2008).

176 "Frequently Asked Questions," Cheap Cigarettes Sale, <http://www.cheap-cigarettes-sale.com/faq.php#2> (accessed November 23, 2008).

177 "Frequently Asked Questions," K2Smokes, <http://www.k2smokes.ch/faq.cfm> (accessed November 23, 2008).

The site adds that while most American companies and Indian reservations are subject to the Jenkins Act (which requires disclosure of whom the tobacco is sold to), the site's owners are "NOT subject to the Jenkins Act and DO NOT report your information to ANY authority" (emphasis in the original). The site does caution that you just might be asked to pay the taxes in the country the cigarettes are shipped to.¹⁷⁸

Conclusion

Looking back on New Jersey's cigarette tax history, during periods of moderate taxation, sales of legally taxed cigarettes remain high. When the state has raised its tax rate sharply, as it has recently, legally taxed sales of cigarettes have plunged. According to government officials and academic researchers who have studied the issue, some smokers have slowed down or quit, but most of the dip in tax revenue is accounted for by casual and commercial smuggling.

Case Study: California

California experienced relatively low rates of cross-border smuggling for several decades by enacting comparatively modest tobacco taxes. During the last 10 years, however, California has relied more heavily on tobacco taxation, and in combination with its openness to world trade, these taxes have made California a place where smugglers have imported billions of untaxed packs of cigarettes. The last decade has been particularly bad as online ordering has increased.

California's Cigarette Tax Rate

Since 1998, tax hikes have boosted the price of cigarettes in California to approximately \$4.00 per pack, higher than in many other states and nations. Two tax hikes occurred in November 1998: Voters narrowly approved Proposition 10, and at the same time California joined 45 other states in the Master Settlement Agreement with the four largest tobacco manufacturers.

Graphic 22: California Cigarette Excise Tax Rates Since 1959

When Tax Applied	Tax Per Pack
July 1, 1959 — July 31, 1967	3¢
August 1, 1967 — September 30, 1967	7¢
October 1, 1967 — December 31, 1988	10¢
January 1, 1989 — December 31, 1993	35¢
January 1, 1994 — December 31, 1998	37¢
January 1, 1999 — Present	87¢

Source: Orzechowski & Walker.

178 Ibid.

Proposition 10 raised the tax rate from 37 cents to 87 cents per pack,¹⁷⁹ and the MSA raised nationwide cigarette prices by nearly \$250 billion over the next 25 years, or approximately 45 cents per pack.¹⁸⁰ The federal government then raised its rate 15 cents, first by a dime in January 2000 and then by a nickel in 2003, bringing the federal tax to 39 cents.¹⁸¹ In 2006, California voters defeated Proposition 86, which would have increased the tax per pack from 87 cents to \$3.47, the highest tax in the nation.¹⁸²

The combined effects of state and federal tax hikes during the past decade have made casual and commercial smugglers willing to skirt the law.

California's Experience With Cigarette Taxation

California's casual smugglers are increasingly aware that they are breaking the law, but casual smuggling remains commonplace. In 2008, California's cigarette tax rate is almost as high as the pre-tax cost of a pack of cigarettes.

The sources of tax-exempt or low-tax cigarettes in California are military bases, Indian reservations, other U.S. states and foreign nations, especially China and Mexico. Except for military bases, all these locations are filled with vendors who take orders over the Internet and deliver, all of which is illegal unless the customers pay California tax, which they rarely do.

Many states taxed cigarettes throughout the 1940s and 1950s, but California held off until the summer of 1959, when it enacted a 3-cent tax.¹⁸³ All cigarettes sold in California were required — and still are required — to bear a tax stamp meant to prove payment.

Although a tax of 3 cents per pack seems like nothing compared with today's prices and taxes, the average retail price of a pack at that time was only 25 cents, including the federal tax. So as a percentage of the item's price, the new tax was by no means negligible. Adjusting for inflation, 3 cents in 1959 was equivalent to 20 cents today.

Was the tax large enough to inspire tax evasion? Sales certainly jumped on military bases, where cigarettes remained exempt from state and local taxes.¹⁸⁴ But the evidence of large-scale smuggling or other tobacco-related crime during the early 1960s is slight. Tax collections on legal sales stayed strong, well above the national average.¹⁸⁵ Evidently, buyers at military bases were casual smugglers, not commercial smugglers trying to get rich reselling low-tax cigarettes.

In 1967, however, California enacted a major cigarette tax hike, more than tripling its tax to 10 cents per pack, the equivalent of 60 cents today. Tax-free sales boomed at military bases, saving customers approximately a dollar per carton (about \$6.00 today).¹⁸⁶ Smokers without privileges on base often asked friends and relatives to improperly purchase cigarettes for them.¹⁸⁷

179 "Prop. 10: Cigarette Tax Initiative Squeaks Through in California," *Reuters*, November 4, 1998.

180 Milo Geyelin, "Forty-Six States Agree to Accept \$206 Billion Tobacco Settlement," *Wall Street Journal*, November 23, 1998.

181 William Orzechowski and Robert Walker, *The Tax Burden on Tobacco*, Historical Compilation 40 (2004), 249.

182 Smartvoter.org, "Proposition 86: Tax on Cigarettes, State of California," (League of Women Voters of California Education Fund, November 14, 2006), <http://www.smartvoter.org/2006/11/07/ca/state/prop/86/>, accessed October 4, 2008.

183 "Digest of Tobacco Taxes," in *Proceedings of the 34th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1960), 41.

184 J.D. Dotson, "Military Sales in California," in *Presentations at the 1984 Annual Meetings of the Tobacco Tax Section of the National Association of Tax Administrators* (Washington, DC: Federation of Tax Administrators, 1984), 16.

185 Author's calculation using data from *The Tax Burden on Tobacco* and Census Bureau.

186 Karen Jowers, "Butt Out: Tobacco Sales Plummet As Prices Rise," *Army Times*, October 20, 2003.

187 John Shannon, "The ACIR Study on State Excise Taxation of Sales to the Military," in *Proceedings of the 49th Annual Meetings of the National Tobacco Tax Association* (Chicago: Federation of Tax Administrators, 1975), 16.

This sales volume on base was painful to the state and embarrassing to the military. Legally taxed sales dropped 7 percent, while statistics showed military personnel buying a preposterous quantity of cigarettes — 725 packs a year per active duty serviceperson,¹⁸⁸ compared to just 123 packs per civilian statewide.¹⁸⁹

An ACIR study confirmed that no legal explanation – extra purchases by retirees or immediate families of active duty personnel – could possibly account for the military personnel’s purchase volume.¹⁹⁰ Evidently, active duty personnel were making purchases on base for resale off base.

In response to these problems, California legislators held off from further tax hikes. They could see the surge of smuggling and violent crime in New York at that time, and they wanted no part of it.¹⁹¹ A 1977 ACIR report was rich in New York-based examples. Chapter three of the report, entitled “Cigarette Smuggling and Organized Crime,” cites a 1975 media investigation detailing how just four crime families, employing more than “500 enforcers, peddlers and distributors[,]” smuggle an estimated 480 million packs into the state each year.¹⁹²

Reservation Sales During the Late 1970s

During the late 1970s, California’s military base sales subsided for two reasons: voters and the Legislature had held the line on the tobacco tax rate, and another tax-exempt source had burst on the scene to replace the bases.

In May 1977, the Chemehuevi Indians began selling tax-exempt cigarettes.¹⁹³ They did not agree with the conventional legal interpretation that they could sell tax-free only to members of the tribe and that they had to collect tax from everyone else. Instead, they sold tax-free to everyone and went to court to prevent California from stopping them. During an eight-year legal battle that went to the U.S. Supreme Court, the Chemehuevi and many tribes who imitated them made a fortune selling hundreds of millions of untaxed packs, many bought by organized criminals for resale by their networks.*¹⁹⁴

The 1980s and Proposition 99

In the 1970s, a smuggler could make between \$10,000 and \$50,000 in profit with just one truckload, cigarettes being so small that 200,000 packs would fit in an 18-wheeler. The maximum profit could be earned if the wholesale source were one of the Indian reservations or Southeastern tobacco states, but convenience, reliability and stealth also factored into the decision of where to buy.

* The legal dispute in this case centered on who was assumed to bear responsibility for the tax. Initially, a U.S. district court found that the tax fell on the non-Indian buyer of cigarettes, and that the transaction was therefore taxable. A U.S. court of appeals later overturned this ruling on grounds that the tax fell on the tribe and that the transaction was therefore not taxable. The U.S. Supreme Court later overturned this finding and sided with the district court.

188 Author’s calculation using data from *The Tax Burden on Tobacco*.

189 Author’s calculation using data from *State Taxation of Military Income and Store Sales* (Washington, DC: Advisory Commission on Intergovernmental Relations, 1976), U.S. Census Bureau, and *The Tax Burden on Tobacco*.

190 *State Taxation of Military Income and Store Sales*, 13-16.

191 For a discussion of cigarette tax evasion in the United States during the mid-1970s, see *Cigarette Bootlegging: A State and Federal Responsibility*, and Patrick Fleenor, *Cigarette Taxes, Black Markets, and Crime*, Cato Institute Policy Analysis No. 468, February 6, 2003.

192 *Cigarette Bootlegging Responsibility*, 21.

193 J.D. Dotson, “Indian Smoke shop Tax Evasion in California,” in *Presentations at the 1981 Annual Meetings of the Tobacco Tax Section of the National Association of Tax Administrators* (Washington, DC: Federation of Tax Administrators, 1981), 28.

194 For a discussion of this topic see Glenn A. Bystorm, “Collection of the California Cigarette Tax on Indian Reservations,” in *Presentations at the 1987 Annual Meetings of the Tobacco Tax Section of the National Association of Tax Administrators* (Washington, DC: Federation of Tax Administrators, 1987), 14-16.

Yet the entire decade of the 1970s and most of the 1980s passed without another California tax hike. Because of high inflation, the 10-cent excise tax had less and less impact each year, and California's smokers seemed less inclined to hunt up a source for lower-taxed cigarettes.

In 1985, the ACIR followed up its earlier study with another look at the tax-exemption problem. Its newer research chronicled the decline of tax-exempt sales on military bases, confirming that California's comparatively low tax rate had solved much of the problem. The general consensus among scholars who have studied the problem and police who have combated it is that California's low cigarette taxes before 1988 did not attract much bootlegging. Its distance from the Southeast probably helped.¹⁹⁵

The passage of Proposition 99 three years later, however, hiked cigarette taxes by 25 cents per pack and dedicated the revenues from the tax to smoking prevention. By raising the state's cigarette tax from 10 cents to 35 cents per pack, or 250 percent, Proposition 99 created an opportunity for smugglers to drive a tractor-trailer load of cigarettes into California and make \$50,000 in criminal profit, reducing California's excise tax revenue. Commercial smuggling surged, and regular taxed sales dropped by one third over the next decade. Some asserted that smokers had quit in droves rather than pay the tax, but federal data indicate that actual cigarette consumption dipped by less than 5 percent.*

Consumers began to appreciate the military commissaries and post exchanges they hadn't frequented in recent years, and tax-free sales on base rose by more than 10 percent over the next five years.¹⁹⁶

There was another reason customers returned to military bases in the late 1980s: The U.S. Supreme Court finally ruled against the Native American Tribes, forcing them to collect tax from non-Indians. With their location inconvenient to non-Indian customers, the reservation stores could no longer compete. Most closed down.

The 1990s: California's Tax Evasion Escalates Dramatically With Internet Sales and Proposition 10

For a little more than a decade, the ruling in the Chemehuevi case had seemingly solved the Indian tax-exemption problem. This began to change in the mid-1990s, however, when the tribes both in and outside California began selling cigarettes over the Internet, as did vendors in foreign countries. Suddenly, travel was no longer necessary as the Internet revolution put brand-name cigarettes within reach of every customer with Web access for as little as \$1.25 per pack.

As with sales on military bases and Indian reservations, this convenient new way to shop for tax-exempt cigarettes put a major dent in the state's taxed cigarette sales. California had enough trouble doing legal battle with Indian tribes; they struggled even more in their attempts to enforce tax laws against vendors in foreign countries.

* Authors' calculations using data from *The Tax Burden on Tobacco*, U.S. Centers for Disease Control, and U.S. Census Bureau.

¹⁹⁵ For a discussion of this topic, see *Cigarette Bootlegging: A State AND Federal Responsibility*, 79-90, and *Preliminary Estimates of California Cigarette Tax Evasion*, California Board of Equalization, June 1999. While traditional over-the-road bootlegging has been less of a problem in the state, according to government officials, California has experienced diversion of tax-free cigarettes – such as those sold at military bases and on Indian reservations – into its ordinary retail market. See, for example, *Cigarette Bootlegging: A State AND Federal Responsibility*, 13.

¹⁹⁶ Stephen Green, "More Smokes Smuggled, Taxes Lost," *Sacramento Bee*, April 14, 1994.

The California Board of Equalization responded with a public relations campaign to remind smokers that if they purchased cigarettes online where taxes weren't collected, they were still required by law to send the tax payment to Sacramento.¹⁹⁷ Beginning in 1999, BOE went further, deciding it would not let out-of-state vendors operate with impunity. The agency threatened online vendors with legal action under the federal Jenkins Act if they didn't turn over their California customer lists. Only a fraction of Internet retailers did so, and when the BOE sent their customers overdue tax bills, some for thousands of dollars, only a few actually paid.¹⁹⁸

The BOE also created a computer model of the cigarette market. This was a custom software program that could use survey data about smokers and historical sales data from the tobacco manufacturers, wholesalers and retailers to produce estimates of supply, demand and tax evasion. In 1999, the BOE's first computer estimates showed that 11 years earlier, the 1988 tax hike had boosted smuggling substantially. The estimates were approximate, but even under conservative estimates, the numbers were staggering. During the 1990 fiscal year (July 1, 1989 – June 30, 1990), between 183 million and 377 million packs of cigarettes had illegally entered California. That is about four tractor-trailers full each day, and in revenue terms, the state lost between \$64 million and \$132 million in one year.

Soon other states raised their cigarette taxes, making them more attractive to smugglers than California was. By fiscal 1993, the BOE estimated that tax evasion had dropped 13.2 percent in three years. California's 2-cent per-pack tax increase on Jan. 1, 1994, temporarily reversed this trend slightly, but by 1998, BOE estimates showed that cigarette tax evasion had fallen 26.2 percent since 1990. Even with smuggling on the decline, the estimated volumes were still considerable: Between 135 million and 278 million packs of cigarettes were estimated to have illegally entered California in fiscal year 1998, representing between \$50 million and \$103 million in potential excise tax revenue.¹⁹⁹

The moderate decline in illicit smuggling that lasted 10 years between 1988 and 1998 ended when California voters raised the cigarette tax by 50 cents per pack, from 37 cents to 87 cents, by approving Proposition 10 in November 1998. That same month, California signed the national Master Settlement Agreement, which raised cigarette prices by about 45 cents per pack. That created yet another slice of potential profit that smugglers could realize when bringing cigarettes in from abroad. Not only could they avoid 87 cents per pack in state taxes, but they could also avoid the 45-cent MSA payment and the 24-cent federal tax.²⁰⁰

That meant smugglers could possibly earn hundreds of thousands in evaded taxes on every shipping container of cigarettes smuggled into the state. And indeed, the BOE model showed evasion surging 12 percent after 1998. Police and BOE inspectors came across more and more cigarettes smuggled from abroad, and the U.S. General Accounting Office found that seizures of counterfeit cigarettes at the ports of Los Angeles and Long Beach increased dramatically in the years following the tax hike.²⁰¹

197 "California Excise Tax and Use Tax Due on Cigarettes Purchased from Outside California," California Board of Equalization, News Release #4-G, January 18, 2000.

198 Troy Wolverton and Greg Sandoval, "Taxes Threaten Booming Sales of Cigarettes Online," CNET News.com, February 18, 2000.

199 "Preliminary Estimates of Cigarette Tax Evasion," California Board of Equalization, June 1999, 4.

200 Ibid.

201 *Cigarette Smuggling*, (Washington, D.C.: United States General Accounting Office, 2004). Also see Lisa Friedman, "Smoking Gun at Ports?" *The Daily News* (Los Angeles), July 3, 2004.

Ancillary Crime

Convenience stores are the most popular target for low-end thieves, and in the wake of the 1988 tax hike, men with knives robbed a series of convenience stores in Orange County. In each case, one man threatened the clerk while the others retrieved trash bags from their pockets and filled them with cartons of cigarettes. The cigarettes were later sold on the black market.²⁰²

Ten years later, after the 1998 tax hike, a more organized group of four armed men stole a tractor-trailer and drove it to a Corona warehouse. Wearing hoods, they forced forklift drivers to load the truck with pallets of cigarettes worth a million dollars. Eight hours later, the cigarettes were already finding their way into the black market, and the empty tractor-trailer was found abandoned.²⁰³

And in 2001, the San Diego Union-Tribune reported that a team of robbers in the area entered a convenience store wearing ski masks and carrying automatic weapons. Before making off with the store's cigarettes, they locked an employee in the bathroom. Similar crimes had been documented in the area at the time, including some in which store patrons were threatened. Police from several jurisdictions felt compelled to develop a coordinated response.²⁰⁴

The Rise of Foreign Suppliers

With Internet cigarette sales booming despite the law enforcement campaign against retailers and consumers, the California BOE also targeted package delivery and credit card companies. These companies had sales records California's government could use to identify tax evaders.²⁰⁵ These forceful tactics did scare some companies, but they may have strengthened the position of foreign online vendors who still felt safely removed from the California crackdown.

Many foreign sites now openly boast about their privacy commitments, promising always to ship cigarettes in plain brown wrappers and never to give tax authorities their records. The federal Jenkins Act requires that mail order or Internet sellers of cigarettes report sales to tax authorities in the state where the order is shipped, but the federal law does not apply to businesses in foreign countries.

In 2003, the sky-high smuggling estimates of the BOE's statistical model were becoming controversial, so a manual check was performed. The BOE surveyed the cigarette inventory of more than 1,300 retailers.²⁰⁶ They found untaxed cigarettes in more than 25 percent of them.²⁰⁷ The numbers corroborated the statistical model, confirming the magnitude of the problem.

A second, related problem has also occurred in California: the counterfeiting not just of cigarette tax stamps, but of the cigarettes themselves. On Oct. 1, 2008, news reports out of California indicated that the government had achieved another successful conviction of seven cigarette smugglers. The ring of illicit tobacco

202 Janine Anderson, "Cigarette Thefts Reignite Issue of Tax Increase," *The Orange County Register*, April 13, 1989.

203 For details of the Corona heist see "Men Steal \$1M in Tobacco Products," Associated Press, March 31, 1999; "Nicotine Fiends Score \$1 Million," Associated Press, March 31, 1999; C.J. Schexnayder, "Getaway Big Rig Is Found," *Press-Enterprise* (Riverside, CA), April 2, 1999.

204 "Police to unite on cigarette case," *San Diego Union-Tribune*, February 2, 2001.

205 Andrew McIntosh, "State Targets Online Cigarette Sales," *Sacramento Bee*, March 18, 2005. Also see Steve Geissinger, "Illegal Cigarette Trafficking Target of Panned Crackdown," *The Daily News* (Los Angeles), March 19, 2005.

206 Documentation of Board of Equalization 2003 Cigarette Tax Revenue Evasion Estimates, California Board of Equalization, February 2003.

207 Ibid.

traffickers — 13 in all — circulated more than a million packs of cigarettes with counterfeit tax stamps. Some of the packs were reportedly counterfeit cigarettes from China. The gang’s operation apparently ran from 2002 into early 2005.²⁰⁸

Similarly, in January 2004, the Department of Homeland Security reported that it had confiscated both genuine and counterfeit cigarettes worth more than \$37 million in a major smuggling operation that spanned five states and included people from California, New Mexico, Texas, New York and Florida.²⁰⁹

The story of Jorge Abraham, one of the smuggling ring’s leaders, was recounted in an Oct. 20, 2008, article published by the Center for Public Integrity and entitled “The Guy in the Wheelchair: How an El Paso Smuggler Moved a Half-Billion Cigarettes Across America.” The article describes an eclectic group of operators distributing counterfeit cigarettes across the United States.

Abraham’s cell wasn’t the only one importing counterfeits from China. By 2002, bogus Chinese cigarettes were pouring into the United States, attracting a rogue’s gallery of distributors — Chinese smugglers and Russian mobsters joined in, along with Abraham’s Mexican-American gang. There was even a ring of Orthodox Jewish smugglers. Abraham’s New York buyers — Deland, Snyder, and Farnham — were also moving contraband cigarettes from Simon and Michael Moshel, a pair of pious Jewish brothers from New York City. The Moshels started out selling fruits and vegetables when they immigrated to the United States from Israel. After selling their produce business, they launched a plastic bag manufacturing plant, and then, among other ventures, began importing goods such as jeans, counterfeit batteries, and fake Marlboros.²¹⁰

Graphic 23 shows two packs of Marlboros, one of which is counterfeit and the other of which is produced by the manufacturer. It’s not easy to spot the fake. Even Marlboro workers employed to defend their brand’s integrity have trouble telling the difference.

The most common difference between the two is apparent only when the product is smoked: The fakes taste bad, and customers frequently call to complain. Counterfeiters clearly spend a great deal of time attempting to exactly copy the look of the cigarette, but they often lace the tobacco with filler, such as sawdust, to reduce production costs.

208 Stacia Glenn, “7-Inland Empire Tax Stamp Counterfeiters Convicted As Part of Cigarette Smuggling Ring,” *Inland Valley (CA) Daily Bulletin*, October 1, 2008, http://www.dailybulletin.com/ci_10613112, accessed October 22, 2008.

209 Department of Homeland Security News Release, “Department of Homeland Security Dismantles Massive Cigarette Smuggling Enterprise,” January 28, 2004, 1.

210 Kate Wilson, “The Guy in the Wheelchair: How an El Paso Smuggler Moved a Half-Billion Cigarettes Across America,” (Center for Public Integrity, International Consortium of Investigative Journalists), October 19, 2008, <http://www.publicintegrity.org/investigations/tobacco/articles/entry/715> (accessed October 22, 2008).

Graphic 23: A Real and a Counterfeit Pack of Name-Brand Cigarettes

Source: Philip Morris USA. The genuine package is on the left.

Proposition 86

In 2006, a record-setting cigarette tax hike was presented to the voters on the California ballot. Despite evidence that high cigarette taxes were creating a major smuggling problem, Proposition 86 gained momentum in its push to nearly quadruple the state's cigarette tax to \$3.47 per pack.

Cigarette smugglers could have profited up to \$700,000 per tractor-trailer load just by diverting the California state tax into their hands. On top of that, if the smuggled cigarettes came from abroad, avoiding federal tax too, the potential profits on a shipping container would have been well over \$1 million. As for street crime, banks would have looked considerably less tempting than cigarette warehouses in California, and even the backroom of a convenience store would have had inventory worth tens of thousands of dollars. Ultimately, however, the proposition failed.

More Law Enforcement Initiatives

In 2005, California's BOE invested in high-tech cigarette stamps, filled with microscopic bar codes that permit quick auditing by a properly equipped BOE inspector. No other state has been willing to buy these expensive stamps, despite their value in thwarting counterfeiters. Revenue from legally taxed sales has risen since the stamps' adoption.

California's illicit cigarette market has grown rapidly since the passage of Proposition 99 in 1988, and even faster since Proposition 10 in 1998. The available evidence supports the BOE's estimates of substantial tax evasion, suggesting that hundreds of millions of cigarette packs escape untaxed each year. The untaxed cigarettes represent over \$100 million in potential state tax revenue.

Assessing Cigarette Taxes

As we noted in the introduction of the study, proponents of raising state cigarette taxes usually advance two major arguments — discouraging smoking, and increasing state tax revenues. If cigarette tax hikes also depress legal cigarette sales and increase smuggling activity, however, lawmakers are faced with the question of how to balance these outcomes when deciding what cigarette tax policies to adopt.

Earlier, we discussed the extent to which raising state cigarette taxes would depress legal sales in Michigan, New Jersey and California (see “The Projected Effect of a State Tax Hike”). We’ll use Michigan to illustrate what these declines mean for state revenue, which is one of the factors that policymakers will naturally consider.

Michigan Treasury figures for cigarette revenue show that approximately 571,473,000 packs of cigarettes were sold legally in the state in 2006,²¹¹ the year on which our model’s tax change projections are based. If the state of Michigan raised its cigarette tax by 25 cents per pack and other states did not change their cigarette taxes,* we would estimate a decline in legal sales of about 23,374,000 packs due to increased smuggling. The net result of this change, however, would still be a gain of about \$90.3 million dollars to the state’s coffers, since the size of the tax increase would more than compensate for the decline in the number of packs sold.

On the other hand, if the state of Michigan chose to cut taxes by 25 cents per pack, legal sales would increase by about 24,755,000 packs due to reductions in casual and commercial smuggling. In terms of state revenue, however, this increase in legal sales would not offset the decline in the per-pack tax rate, and we would estimate that state revenues would fall by approximately \$99.5 million due to changes in smuggling.

Calculations of the effect on tax revenue for tax increases and decreases of 25 cents and 50 cents appear in Graphic 24. The revenue figures in Graphic 24 do not quite represent the total change in state tax revenue as a result in a change in the tax levied, since they do not include the effect of people reducing their smoking in response to a tax hike or increasing their smoking in response to a tax cut.† Nor do the figures include the impact on the revenue estimates of the general sales tax levied on cigarettes.

* The model is based on the differences between a state’s cigarette taxes and the cigarette taxes of other states. Hence, the model will generate considerably different results from the ones in the text above if we assumed that all of Michigan’s bordering states increased their taxes by the same amount and at the same time Michigan did. In that (unlikely) case, the net change in smuggling would probably be small and limited to Indian reservations.

† An increase in smoking due to a tax cut may include some cigarettes smoked by new smokers, but it will also include the additional cigarettes smoked by existing smokers. Similarly, in a tax increase, some of the reduction in total cigarette consumption may include a reduction in cigarettes due to a reduction in the number of smokers, but it will also include the reduction in cigarettes smoked by existing smokers.

211 “Cigarette Sales History: Calculated Packs Sold Taxed Based on Revenue Collections,” Michigan Department of Treasury’s Office of Revenue and Tax Analysis, September 2008.

Graphic 24: Projected Changes in Michigan Tax Revenue Resulting From Tax and Smuggling Changes

Tax Change	Change in Sales	Change in State Tax Revenue
(Cents)	(Thousands of Packs)	(Millions of Dollars)
-50	50,973	-\$209.3
-25	24,755	-\$99.5
2006 Rate	--	—
25	-23,374	\$90.3
50	-45,443	\$172.1

Note that the calculations for changes in state tax revenue assume that base cigarette consumption is approximately 560,774,000 packs annually.

Still, given the considerable impact of smuggling on state tax revenues, these numbers in Graphic 24 provide a fair picture of what a modest increase or decrease in state cigarette taxes will generally do. In most cases, an increase in the tax rate will increase state cigarette tax revenue and prompt a small decrease in overall smoking, but yield more consumption of smuggled cigarettes. Similarly, a decrease in the tax rate will result in less state tax revenue and a modest increase in overall smoking, but also produce less consumption of smuggled cigarettes.

At first blush, higher cigarette taxes might seem to yield more benefits and fewer costs than lower cigarette taxes. But looking closely at the question leads to a more complex answer.

The high and rising state cigarette taxes of recent years have considerably escalated the social cost of smuggling. Casual smuggling may not risk much more than a reduction in expected state tax revenues, especially with the convenience of Internet cigarette orders, but it still represents a loss of time and energy that a consumer might spend on something more productive.

The social costs appear to be higher with commercial smuggling, which has become a significant component of the modern-day black market in cigarettes. Commercial smuggling can yield enormous quantities of money, with a single semi-trailer shipment generating hundreds of thousands of dollars in revenue. Minor league commercial smugglers may earn thousands of dollars with a vanload of cigarettes for part-time work. With such sums at stake, the incentive to steal cigarettes and cigarette tax stamps intensifies, leading to new crimes of violence, including hijackings, breaking-and-entering, theft, robbery and even murder. Drivers, shopkeepers, innocent bystanders and police have been threatened and injured.

The profits from these activities not only help finance more commercial smuggling (and its ancillary violent crime); they also can help finance other illegal activities. Smuggling profits diverted to Hezbollah or to organized crime are unlikely to serve the interests of the people that policymakers are supposed to serve.

Ultimately, smuggling brings health risks, just as smoking does. While it is difficult to compare the two risks — the health effects of habitual smoking are

well-known, and the crimes fueled by cigarette smuggling are harder to trace — it is clear that cigarette smuggling creates risks for innocent people. Victims of crime financed by the profits from cigarette smuggling may have no relationship to the cigarette industry or to the smugglers themselves.

Nor is it likely to serve society's interests to have people in the cigarette wholesale and retail industry face a serious risk of violent crime due to the smuggling trade. Many business owners who deal in cigarettes have been used to running their businesses like any company that handled similar merchandise, and they now find themselves facing the threat of armed robbery and other crimes. If they exit the industry to avoid the risk, legal cigarettes will become scarcer; if they raise their price to help pay for the risk, legal cigarettes will become more expensive. Both will result in further demand for smuggled cigarettes, strengthening the commercial smuggling industry. As in the era of alcohol prohibition, commercial smugglers, having already embraced criminal activity, will tend to be less concerned about the user safety of smuggled — possibly counterfeit — products. They will be more prone to violence. And as with narcotics prohibition, they will be less concerned about selling to underage consumers.

Increasingly pervasive smuggling — whether commercial, casual or Internet smuggling — will also tend to affect smoking cessation rates. Smokers who might have responded to higher taxes by quitting their habit may be less likely to do so as smuggling increases. A prevalence of illegal product will make it easier to find low-cost cigarettes, and an increased incidence of illegally purchased product could help habituate otherwise law-abiding smokers to engaging in illegal activity. Hence, one of the apparent benefits of raising cigarette taxes — a reduction in smoking — may decrease as cigarette taxes rise. As DeCicca, Kenkel and Liu have written, “[R]egardless of how large smoking's externalities are or internalities are, tax avoidance reduces the effectiveness of state excise taxes as a corrective policy tool. ...”²¹²

The other apparent benefit — an increase in state tax revenues — may also decrease as cigarette taxes rise. Our model suggests that increases in illegal cigarette purchases will lead to diminishing returns in enhancements to state revenue; as Graphic 24 shows, both a 25-cent tax hike and a 50-cent tax hike will increase state revenue, but the 50-cent tax hike falls short of raising twice as much as the 25-cent tax hike. This result is due to increased tax avoidance and smuggling; it is not due to the greater reduction in smoking caused by the higher 50-cent tax (smoking cessation is not included in the calculations, though it is unlikely to change them significantly).*

At particularly high tax levels, it is even possible that cigarette tax revenues will decline with a cigarette tax increase. As noted earlier, New Jersey's recent tax increase gave it the nation's highest state cigarette excise tax, but for the next two years, actually left the state with less cigarette tax revenue than it had before.

* In fact, including the effects of higher taxes on the consumption of cigarettes could bring the estimated tax revenues for the two tax hikes even closer together.

212 DeCicca, Kenkel and Liu.

It is also worth considering how state cigarette revenue is spent. Proponents of high cigarette excise taxes argue that smoking addiction leads to higher medical costs that general taxpayers are forced to subsidize through taxes for Medicaid. This argument was used in the 1990s when many state attorneys general began suing tobacco companies for compensation for health care costs allegedly imposed on the states by residents' cigarette use. The settlements that resulted from those lawsuits, including the Master Settlement Agreement, resulted in tobacco company payments to the 50 states totaling more than \$243 billion in the first 25 years.²¹³

State governments have used the money for everything from public school finance to defending Los Angeles city police officers from lawsuits stemming from alleged abuse.²¹⁴ Michigan, the state whose tax revenues were considered above, has used its MSA money for college scholarships; for state economic development programs;* for a Forest Finance Authority; for promoting the film industry in Michigan; for advertising for Michigan's tourism industry; and for a lump sum payment of \$400 million²¹⁵ in securitized revenues in 2006. The advocacy group Tobacco Free Kids reported that in fiscal 2007 Michigan spent nothing on tobacco prevention programs. In fiscal 2008, the group found that the state registered a \$3.6 million expenditure on such programs, about 6.6 percent of the Center for Disease Control's recommended minimum.[†]

Much of the spending of the MSA money in Michigan and elsewhere has not dealt with Medicaid costs or smoking prevention — a disconnect with the purported purpose of the original lawsuits. Rather, the spending has been used for a variety of programs meant to benefit the general public. The same is true of much of the revenue from Michigan's cigarette excise tax.

Yet it is generally considered poor tax policy to fund general purpose programs using revenues raised from only a minority of the population, such as smokers. Such policies prevent the general public from appreciating the full cost of the benefit it receives and can encourage a majority of voters to overtax a minority. This may be especially worth remembering given that cigarette taxes, which are based on a percentage of the price, are inherently regressive, meaning that they fall more heavily on the poor. Indeed, DeCicca, Kenkel and Liu note that cigarette tax evasion increases with income level, meaning that cigarette taxes may be more regressive than usually recognized.²¹⁶

Policy Implications

What conclusions might state policymakers draw? In states where cigarette excise taxes are already high or a tax hike would make them so, policymakers should consider refraining from further tax increases given the higher societal cost of increased smuggling, the higher cost of crime control and the diminished value of the hike in promoting smoking cessation. Ideally, policymakers should

* See, for instance, "Michigan: The France of North America," Michael LaFaive, <http://www.mackinac.org/7428> (accessed November 30, 2008).

† "A Decade of Broken Promises: The 1998 State Tobacco Settlement, 10 Years Later: Michigan," Tobacco Free Kids, <http://www.tobaccofreekids.org/reports/settlements/print.php?stateID=MI> (accessed August 18, 2008). Michigan and other U.S. states are not alone in this behavior. A 2008 report from the World Health Organization says, "In countries with available information, tobacco tax revenues are more than 500 times higher than spending on tobacco control. In low- and middle-income countries, tobacco tax revenues are more than 9000 and 4000 times higher than spending on tobacco control, respectively."

213 Viscusi, W. Kip, *Smoke-Filled Rooms: A Postmortem on The Tobacco Deal* (The University of Chicago Press: Chicago, Ill., 2002) 4.

214 *Ibid.*, 55-56.

215 "Economic Development and Tobacco Securitization Package: Description of Key Components as Enacted," December 16, 2005, 1.

216 DeCicca, Kenkel and Liu.

feel particularly hesitant if the cigarette tax revenues are not meant to address the problems particular to tobacco use, but rather to finance programs that might be better shouldered by the general taxpayer. A better option may be to cut excise taxes to thwart smuggling and other unintended consequences.

Some have argued that states with lower cigarette taxes should raise them to reduce the interstate tax differential and the potential profits from interstate smuggling. It is true that a tax increase in these states will probably bring a higher benefit in additional tax revenues and smoking cessation than in a higher-tax state, while avoiding some of the increased risk of interstate smuggling.

Still, policymakers in these lower-tax states should consider that cigarette smuggling is not just an interstate phenomenon, but an increasingly international one. Raising state tax rates will make smuggling cigarettes from abroad more lucrative, since international smugglers can sell without charging either federal or state taxes. In addition, there is a question of priorities. State lawmakers' first purpose is presumably to serve their state's own residents. Trying to close interstate tax differentials is primarily an attempt to help other states address problems caused by their own tax and spending policies. This would link a state's sovereign taxing authority to the decisions of other governments and would do so at a disproportionate cost to the state's poor.

In light of the tax avoidance problems created by state cigarette tax differentials, some have questioned whether state excise taxes can work as intended. DeCicca, Kenkel and Liu argue the optimal state tax rate, given not just the health costs of smoking, but of cigarette tax avoidance as well, is just 78 cents per pack. As noted earlier, however, they acknowledge the impact of tax avoidance on the efficacy of state excise taxes and observe that it "points to the advantages of federal taxes." In theory, focusing on a federal tax approach could avoid some of the smuggling problems produced by large interstate tax differentials.²¹⁷

At the same time, however, it is difficult to see how a federal cigarette tax could supplant state taxes. The federal government could not compel states to forgo their cigarette taxes, and state tax differentials would probably either remain when a higher federal tax was passed or re-emerge as time passed. Nor is it clear that the federal government would redistribute the cigarette revenues to the states commensurate to their health spending needs; the federal government has not, for instance, distributed federal gas tax revenues based only on states' demonstrated transportation needs, but rather according to various political considerations as well.*

* West Virginia, for instance, benefited disproportionately in the distribution of federal gas tax revenues, receiving far more in federal gas tax distributions than state motorists paid to the federal government. This mismatch was widely attributed to the influence of Sen. Robert Byrd, whose seniority on the Senate Appropriations Committee gave him considerable clout in determining federal road spending.

217 Ibid.

A Final Thought on Cigarettes, Taxes and Freedom

The decision to research and write this study was inspired first by the authors' recognition that tobacco taxes — and their unintended consequences — have

spiraled upward in recent years. Federal and state lawmakers seem likely to propose even higher tobacco taxes in the months and years to come, and a professional evaluation of the past and projected effects of cigarette tax hikes seemed timely.

Our focus on taxes has meant that we have not dwelled on the risks of smoking. This does not mean we think tobacco usage is harmless for consumers. Rather, we believe our findings may help remind policymakers and the public that the debate over cigarette taxes would probably benefit from more nuance and balance.

Still, in many cases the urge to raise cigarette taxes seems to involve more than a cost-benefit analysis; it appears to be driven instead by a conviction that public policy should be used to eliminate smoking altogether. This is a moral conviction and deserves more than an accountant's ledger in response.

Smoking has been linked to serious health problems, and there is no question that heavy cigarette consumption is a risky habit. People who do not like cigarette smoking have a right to refrain from it and exclude it from their property. Yet using taxes and new laws to make citizens give up smoking in their personal lives raises important concerns about individual freedom.

Cigarette smoking is only one of many risky behaviors that people enjoy. Others include driving cars, riding horses, skydiving, overeating and casual sex. High taxes on these activities might eliminate some health risks and reduce the associated health care costs, but people do not always behave as expected. They often enjoy an activity precisely because it involves some risk. They may respond to higher costs by seeking to avoid the costs, not the activity, even when avoiding the costs is illegal. After all, that risk may become part of the attraction.

It does not take much imagination, especially after America's experiment with alcohol prohibition, to see that fighting this impulse could generate an intrusive enforcement regime and a growing disrespect for the law. Intrusiveness and lawlessness would be more than just unpleasant: They could undermine people's pursuit of happiness. That pursuit may sometimes be erratic and wrongheaded, but it is part of the value and purpose of life. As U.S. Supreme Court Justice George Sutherland once said, "To give a man his life, but deny him his liberty, is to take from him all that makes his life worth living."²¹⁸

As a society, then, we should be careful about marking people down for harsher tax treatment because they engage in certain personal activities. When taxation moves beyond a modest revenue measure, it can become a relentless social crusade, with each unintended consequence generating new reasons for more revenue and more enforcement.

Our fellow citizens deserve better than that. No matter how much we may want a tobacco-free America, a free America is important too.

* The similarities between the illicit activities attending high cigarette taxes and the illicit activities attending Prohibition have probably occurred to the reader. A review of the Prohibition era in Michigan makes the similarities seem striking indeed. We provide a short synopsis of Prohibition crime and smuggling in "Appendix B: Prohibition in Michigan and the Avenue de Booze."

218 *Hmura v. Police*, 741 N.E. 2d 491 (Appeals Court of Massachusetts), quoting U.S. Supreme Court Associate Justice George Sutherland's address 1921 address to the New York State Bar Association.

Appendix A: The Econometric Analysis

A State-Level Analysis

In this appendix we motivate and discuss the empirical models and results used to produce the casual and commercial smuggling estimates presented in the main text under “A New Estimate of Interstate Cigarette Smuggling Rates” (see Page 12). The results of this study build upon the existing literature, which provides considerable support for the presence of substantial tax-induced smuggling, both casual and commercial. For instance, Lovenheim (2007) estimates that 13 percent to 25 percent of U.S. consumers engage in casual smuggling while Thursby and Thursby (2000) find that commercial smuggling accounted for nearly 7.3 percent of total sales in the United States in 1990.

Such estimates have usually been generated from representative consumer demand models in which variables such as price, tourism, income, race and religious affiliations, among other demographic variables, are used to characterize demand. The researchers then include tax or price differentials, American Indian and military populations and distance to North Carolina (as the primary source of commercial smuggling) among other variables to measure the impacts of casual and commercial smuggling.

The empirical model employed herein differs from the general representative consumer demand models of the existing literature. We do not contend that our method is superior to those proposed before us; rather, our model should be viewed as a complementary method of measuring cigarette smuggling. Furthermore, given that our results are consistent with the findings of the existing literature, the finding of substantial levels of tax-induced smuggling is robust. The primary difference between our model and those generally used in the literature is that we do not estimate a standard demand model. Rather, we first estimate state-level sales as a function of in-state consumption. As will be described in further detail below, the resulting unexplained portion of state sales can then be attributed primarily to smuggling practices, assuming measurement error is relatively small. As such, we use the residual (unexplained sales) from the aforementioned regression as the dependent variable in a second regression which includes tax differentials and other common variables to explain the level of casual and commercial smuggling.

Per-adult tax-paid cigarette sales (hereafter per-adult sales) can be defined as the sum of in-state consumption and net smuggling, as presented in Equation 1:

$$PCSales_{it} = Cons_{it} + NetSmug_{it}$$

where *PCSales* is per-adult cigarette sales, *Cons* represents the in-state per-adult consumption, *NetSmug* is the per-adult number of packs of cigarettes exported to residents of other states minus the number of packs imported by residents of the home state from other states or other jurisdictions (including Indian reservations and military bases), and *i* and *t* indicate state and year.

Our first-stage regression equates to a naïve version of Equation 1 in that we do not control for any smuggling. Instead, we include only in-state consumption on the right-hand-side of the equation. If the smuggling of cigarettes is not prominent, then sales within the state will be approximately equal to in-state consumption. As such, the R-square from such a regression would be fairly close to one.* However, if smuggling is a prominent feature of the cigarette market, such a naïve model will fail to explain a much larger percentage of the variation in per-adult sales, resulting in large residuals (in magnitude).

The sign and magnitude of the residuals from the estimation of the naïve model are of particular interest to us. Specifically, for low-tax states, the naïve model will systematically under-predict actual sales (positive residual), as consumers from other states travel across state-lines to purchase cigarettes in the lower-tax state. Thus, actual sales in the low-tax state will exceed the amount indicated by in-state consumer demand. Similarly, the model will systematically over-predict actual sales for high-tax states (negative residual), as in-state residents choose to purchase cigarettes in nearby lower-tax states, from Indian reservations or military bases, or from illegal markets.

In order to estimate our naïve model of per-adult tax-paid cigarette sales, in-state per-adult consumption must first be characterized. We define in-state per-adult consumption by Equation 2:

$$Cons_{it} = Smoke_{it} * Intensity_{it} * R_{it}$$

where *Smoke* is the smoking prevalence in the state (the percent of the adult population in the state who are smokers), *Intensity* is the average number of packs consumed during a year by smokers in the state, and *R* is a parameter between zero and one allowing for the under-reporting of smoking prevalence.†

Data on smoking prevalence is available from the Centers for Disease Control and Prevention (CDC) through its Behavioral Risk Factor Surveillance System (BRFSS). Unfortunately, data regarding smoking intensity is not readily available. Computing smoking intensity for the U.S. as a whole (based on observed consumption and smoking prevalence for the U.S.), the average smoker consumed 377.5 packs per year in 1995, and this volume has declined by nearly eight packs per year through 2006, as displayed in Figure 1.‡ Given this close-to-linear trend in smoking intensity and the lack of data for this variable, we make some simplifying assumptions. Specifically, we assume that smoking intensity does not vary across states and that it trends linearly through time. Some evidence exists suggesting an under-reporting of cigarette consumption in survey data, such

* Furthermore, the estimated intercept and slope coefficients should be insignificant from zero and one, respectively.

† We would like to thank a referee for suggesting the inclusion of under-reporting in our model.

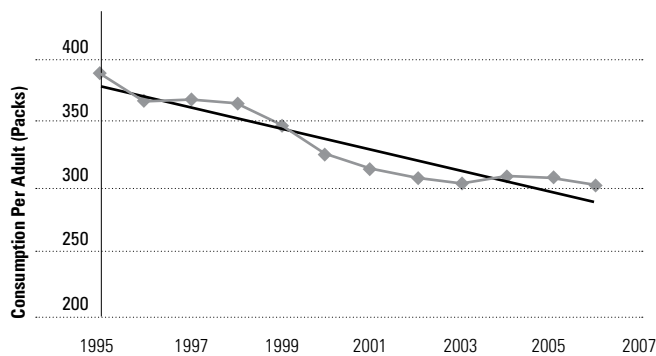
‡ 1995 – 2006 is used as the sample period for this statistic rather than our full 1990 – 2006 sample period because aggregated U.S. statistics prior to 1995 are not available on the BRFSS web page.

as the BRFSS.* However, this issue more readily plagues estimates of smoking intensity (i.e., cigarette consumption per day) than it does estimates of smoking prevalence. As such, we assume that under-reporting of smoking prevalence is not a major concern for our study and that any changes in the rate of under-reporting varies identically across all states and follows a linear trend. With these assumptions in mind, Equation 2 becomes

$$Cons_{it} = Smoke_{it} * f(Trend_t)$$

where $f(Trend_t)$ represents the above-described linear function of smoking intensity and under-reporting.

Figure 1



The empirical specification of our naïve model, then, sets per-adult sales as a function of smoking prevalence and a time trend. We estimate this model using state-level data for the U.S. contiguous states (excluding North Carolina) for the time period 1990-2006. North Carolina is excluded from our sample as it is modeled as the primary source of commercially smuggled cigarettes, which will be described in greater detail below.†

Descriptive statistics and sources for all variables used in this study can be found in Table 1. Table 2 presents the maximum likelihood estimates of our naïve model. Columns 1 and 2 present the linear specification of the model, while the preferred log-linear specification is presented in Columns 3 and 4.‡ Both specifications control for groupwise heteroskedasticity to allow for non-constant variance across the states.§ Both smoking prevalence and the time trend are of the expected sign and significance level. Per the results presented in the final two columns of Table 2, a 1 percentage point increase in the smoking prevalence rate results in a 5.3 percent increase in per-adult sales in the state. Furthermore, per-adult sales are shown to decrease by an average of 1.8 percent per year, which we attribute to the decline in smoking prevalence over time.

* See, for example, Warner (1978).

† The estimation results and the implications of this study are largely unchanged if Kentucky and Virginia (also prominent tobacco states) are excluded from the sample as sources of commercially smuggled cigarettes.

‡ OLS estimation produces similar estimates to the ML estimates presented here, however, ML estimation is preferred due to its robustness to distributional assumptions regarding the error term.

§ Allowing for groupwise heteroskedasticity may minimize any bias due to the assumption of constant smoking intensity and under-reporting across the states.

Table 1: Descriptive Statistics and Sources of Data

	Mean	Std.Dev.	Minimum	Maximum	Source
Per-Adult Cigarette Sales [packs]	89.272	27.402	32.400	186.800	[1]
Smoking Prevalence [%]	22.833	3.126	9.800	32.600	[2]
Ave. Tax Rate Differential [cents]	-1.096	25.664	-83.368	126.008	[1,4]
Percent Border Population	1.305	0.990	0.111	4.586	[3,4]
Canadian Border State Dummy * Tax [cents]	12.506	29.253	0	176.344	[1,4]
Mexican Border State Dummy * Tax [cents]	4.140	15.407	0	110.433	[1,4]
Indian Reservation Dummy * Tax [cents]	22.723	30.994	0	176.344	[1,4]
NC Tax Differential [cents]	37.343	31.873	-19.646	212.495	[1,4]

[1] Tax Burden on Tobacco, 2007

[2] Behavioral Risk Factor Surveillance System Survey Data (BRFSS), various years

[3] U.S. Census Bureau, Intercensal County Population Estimates

[4] Computed

Note: All prices are represented in constant year 2000 dollars.

Table 2: Maximum Likelihood Estimation: State Per Adult Cigarette Sales, 1990 - 2006

Dependent Variable:	Per Adult Sales		LN(Per Adult Sales)	
	[1] Coeff.	[2] Std.Err.	[3] Coeff.	[4] Std.Err.
Smoking Prevalence [%]	3.9234***	0.1196	0.0527***	0.0016
Time Trend	-1.5279***	0.0703	-0.0183***	0.0009
Constant	9.0069***	2.9334	3.4003***	0.0393
Brusch-Pagen LM Statistic	1609.52***		931.57***	
Chi-Squared Statistic	759.33***		534.52***	
Number of Observations	799		799	

Notes: Statistical significance of 1%, 5% and 10% are represented by ***, **, and *, respectively. Results are corrected for groupwise heteroskedasticity via the HREG command within NLOGIT 3.0.

As mentioned above, it is not the coefficient estimates from the naïve model that interest us; rather, it is the residuals from this naïve model that are of particular importance. Figure 2 presents a scatter plot of per-adult sales and smoking prevalence for the 47 states in our sample for the year 2006. The exponential trend-line is purely for explanation purposes and does not represent our actual estimation of the naïve model. Two observations, in particular, have been identified and labeled in the scatter plot: Delaware and New Mexico.

The residual for Delaware is nearly 114 packs; that is, per-adult sales in Delaware are 114 packs more than is predicted by the naïve model. New Mexico, on the other hand, observes a residual of over 28 packs; that is, per-adult sales in New Mexico are 28 packs less than predicted by the model. Casual observation of the tax-differentials with the bordering states can help explain these residuals. In 2006, Delaware's cigarette tax was 55 cents while the average tax of the states bordering Delaware was over 148 cents, a difference of over 93 cents per pack. As such, we should expect many residents of surrounding states to travel into Delaware to

purchase their cigarettes at a lower price. The New Mexico experience should be the opposite of Delaware's because its cigarette tax is, on average, 24 cents higher than the taxes in bordering states. The observed residuals for the other states can also generally be explained by border tax differential.*

We now turn our attention to a more formal analysis of smuggling through the examination of the residuals from the naïve model. We attribute most of the variation of the residual from the naïve model to the occurrence of the two types of smuggling: casual and commercial (organized). Casual smuggling can take the form of cross-border shopping between states, cross-border shopping to and/or from Canada and Mexico, and the purchase of un-taxed cigarettes on military bases and Indian reservations by non-military personnel and non-tribal members.

To account for tax-induced cross-border shopping across state lines we include the weighted average tax differential (home tax rate – average border tax rate) between the home state and the bordering states.† Similar to the weighting method employed by Coats (1995), the weights are based on county border populations. However, large tax differentials probably will not cause significant cross-border shopping if only a few people live along the borders. As such, we include the population living on either side of the border divided by the home state's total population (percent border population). This percentage can take on a value greater than one when the border population in surrounding states is sufficiently large, thus causing the border population to exceed the home state's total population. Finally, we include an interaction term between the average tax differential and percent border population.

To capture the impact of the presence of Indian reservations, we include the tax rates of the states in which Indian reservations are present. This is effectively the tax differential between the home state and the tribal land, as no taxes are generally applied to cigarettes sold on Indian lands.‡ Ideally, we would also like to include for the states bordering either Canada or Mexico the tax differential with the Canadian province(s) and Mexican state(s). Unfortunately, accurate data on such tax rates, particularly for Mexico, were not available. As such, we simply include the home state tax rate for those states bordering either Canada or Mexico.

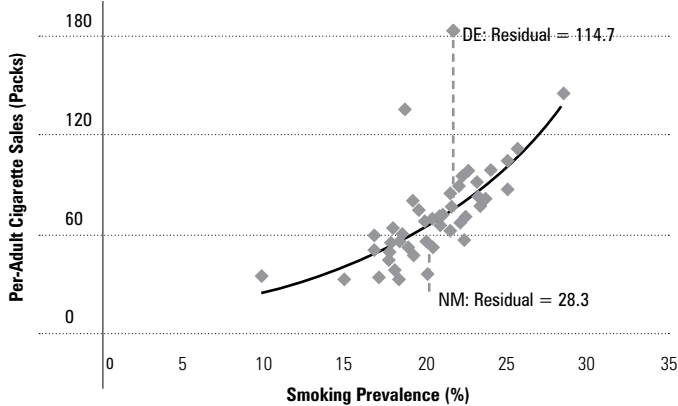
As described by Thursby and Thursby (2000), commercial smuggling primarily occurs "over-the-road" or by "diversion." Diversion involves the manipulation of accounting records, reporting only a portion of their sales. In effect, firms divert the unreported portion, on which no taxes were paid, to the illegal sector. As this type of smuggling involves manipulating the accounting records, regular auditing can reduce such occurrences. Over-the-road smuggling occurs when bulk cigarettes are purchased legally in low-tax states and then shipped to higher-tax states. Counterfeit stamps are then placed on the cigarette packs, which are

* Delaware and New Mexico were chosen for this discussion for no other reason than that the corresponding residuals are the largest and smallest (respectively) of all states in 2006.

† All monetary values are represented in constant year 2000 dollars.

‡ With that said, many states, Michigan being one of them, have reached agreements in which at least some tribes have agreed to collect the state tax on sales of cigarettes to non-tribal members.

Figure 2:



then often sold in legal markets. Distributors in the low-tax states are often paid to not place the home-state's stamp on the cigarettes; however, such payment is not necessary in North Carolina (as of 1994) or in South Carolina (as of 1996) as both states repealed the use of the state stamp. Such actions effectively promote commercial smuggling by reducing professional smugglers' transaction costs.

Our empirical model controls for only over-the-road smuggling, as has been common in the literature with the exception of Thursby and Thursby (2000). North Carolina has generally been modeled as the primary source of commercially smuggled cigarettes and we will follow the same convention. The tax differential between the home state and North Carolina is, therefore, included as our measure of commercial smuggling. We estimated additional specifications in which we added distance from North Carolina and an interaction term between the tax differential and distance variables, but they were both statistically insignificant and performed poorly. As such, we eliminated them from the final model. This is consistent with much of the previous literature as transportation costs account for a very small portion (less than one percent) of the total value of cigarettes, suggesting that such costs should exert a negligible impact on smuggling.*

The OLS estimation results in which we regress the residuals from the log-linear naïve model against the above described tax differential and population variables is presented in Columns 3 and 4 of Table 3.† The estimates corresponding to the linear naïve model are presented for robustness purposes only and can be found in Columns 1 and 2 of Table 3. It is important to understand what the dependent variable represents when interpreting these results. Recall that the residual is the actual per-adult sales minus the predicted sales from the naïve model. A positive residual, then, indicates that the naïve model under-predicted actual sales; that is, in-state consumption is less than sales in the state, suggesting the smuggling of cigarettes out of the state by non-residents. A negative residual suggests that the naïve model over-predicted sales and therefore indicates that residents of the state chose to buy significant quantities of cigarettes from outside the state.

* See Thursby and Thursby (2000) and Thursby et al. (1991).

† We also estimated a model of Equation 1 directly which includes smoking prevalence, a time trend, and all our smuggling variables included in the second stage of our model. This specification is more similar to those of the existing literature. The results are similar to those of our preferred estimation strategy presented in this paper and are available from the authors upon request.

Table 3: Unexplained Per Capita Sales from Naïve Model, 1990 - 2006

Corresponding Naïve Model:	Linear		Log-Linear	
	[1] Coeff.	[2] Std.Err.	[3] Coeff.	[4] Std.Err.
Ave. Tax Rate Differential [cents]	0.130***	0.039	0.001***	0.000
Percent Border Population	3.686***	0.619	0.028***	0.006
Ave. Tax Differential x % Border Population	-0.213***	0.018	-0.002***	0.000
Canadian Border State Dummy x Tax [cents]	0.033	0.025	0.000	0.000
Mexican Border State Dummy x Tax [cents]	-0.124***	0.036	-0.002***	0.000
Indian Reservation Dummy x Tax (cents)	-0.134***	0.022	-0.002***	0.000
NC Tax Differential [cents]	-0.135***	0.023	-0.002***	0.000
Constant	5.803***	1.130	0.061***	0.012
R-squared	0.501		0.540	
Number of Observations	799		799	

Notes: Statistical significance of 1%, 5%, and 10% are represented by ***, **, and *, respectively.

All independent variables included in the model are statistically significant with the sole exception of the Canadian border variable. An increase in the tax differential with North Carolina (our measure of commercial smuggling) is shown to reduce the residual, indicating an increase in commercial smuggling of cigarettes from North Carolina. States along the Mexican border, and particularly those with higher tax rates, also experience increased smuggling of cigarettes into the state from Mexico.

The same can be said of Indian reservations; of those states with at least one Indian reservation, those with higher taxes experience increased smuggling from the reservations. The implications from the model concerning casual smuggling across state borders are not as clear, as the coefficient of average tax rate differential is positive while the interaction term is negative. However, given the mean percent border population of 1.305, the impact of a 1-cent increase in the average tax differential is clearly negative (-0.148), suggesting that the larger the home tax rate relative to the average bordering tax rate, the greater the smuggling into the state from the lower-tax neighboring states.

Given the above estimation results, we compute the percentage of cigarette pre-smuggling sales in each state for several types of smuggling: casual smuggling across state boundaries and from Indian reservations, casual smuggling across international borders (Canada and Mexico) and commercial smuggling from North Carolina. Pre-smuggling sales is the estimated quantity of cigarettes that would have been sold in the state had no smuggling occurred (effectively, in-state consumption alone). Mathematically, it equates to observed sales minus estimated smuggling. For states that are estimated to be importers of smuggled cigarettes, estimated smuggling takes on negative values and pre-smuggling sales will exceed observed sales. For net exporters of smuggled cigarettes, pre-smuggling sales will be less than observed.

Table 4 presents our state-level average estimates of the percent of sales that are smuggled (by smuggling component and in total) over our entire sample period 1990-2006 (this table is reprinted from the earlier section titled “A New Estimate of Interstate Cigarette Smuggling Rates”). Those states for which percent smuggled is negative are net importers of smuggled cigarettes. The imports of smuggled cigarettes exceed 20 percent of sales in only four states: Arizona, California, New York and Washington, with California topping out at nearly 25 percent of sales. Only Delaware’s and Virginia’s exports of smuggled cigarettes exceed 20 percent of total sales, although New Hampshire is close with over 17 percent smuggled.* Delaware is interesting, as its exports are nearly 30 percent of sales.

* These findings are relatively consistent with those of Lovenheim (2007), as he estimates the percent change in net sales due to smuggling in Delaware, New Hampshire and Virginia to be 52.3 percent, 104.2 percent and 65.4 percent respectively. While the percentages differ, these three states are all in the top five exporters of smuggled cigarettes based on his estimates.

**Table 4: Estimated Tax-Induced Smuggling as a Percent of Sales:
1990-2006 Annual Averages**

State	Per Adult Legal Sales	Estimated Tax-Induced Smuggling as a Percent of Pre-Smuggling Sales			
		Commercial	Casual	Canada/Mexico	Total
AL	97.90	-2.91%	2.45%	0.00%	-0.37%
AR	102.85	-5.37%	1.41%	0.00%	-3.64%
AZ	69.77	-6.49%	-4.41%	-8.91%	-20.63%
CA	49.98	-7.36%	-5.92%	-10.08%	-24.51%
CO	76.43	-3.46%	-2.72%	0.00%	-5.92%
CT	71.69	-11.70%	4.47%	0.00%	-6.22%
DE	142.05	-5.04%	34.78%	0.00%	29.44%
FL	87.75	-4.65%	-2.97%	0.00%	-7.33%
GA	93.78	-1.71%	1.19%	0.00%	-0.47%
IA	90.55	-5.01%	-2.44%	0.00%	-7.15%
ID	74.15	-4.67%	3.97%	0.60%	0.09%
IL	75.68	-9.52%	0.52%	0.00%	-8.42%
IN	122.09	-3.45%	10.64%	0.00%	7.12%
KS	79.81	-5.03%	-3.96%	0.00%	-8.68%
KY	168.40	0.03%	4.98%	0.00%	4.71%
LA	98.35	-3.13%	-2.65%	0.00%	-5.52%
MA	66.66	-12.74%	1.75%	0.00%	-10.10%
MD	70.09	-9.01%	3.04%	0.00%	-5.33%
ME	92.27	-10.12%	2.32%	1.11%	-5.93%
MI	84.98	-11.57%	-6.01%	1.22%	-15.97%
MN	78.04	-6.84%	-5.40%	0.78%	-11.13%
MO	114.69	-2.06%	5.97%	0.00%	3.79%
MS	99.85	-2.33%	0.66%	0.00%	-1.55%
MT	79.19	-5.36%	-3.79%	0.65%	-8.17%
ND	75.03	-6.18%	-3.89%	0.74%	-8.96%
NE	79.72	-5.18%	-3.36%	0.00%	-8.24%
NH	150.79	-4.99%	21.44%	0.61%	17.22%
NJ	67.78	-13.80%	0.60%	0.00%	-12.32%
NM	57.98	-5.39%	-0.43%	-8.20%	-13.61%
NV	96.38	-7.55%	10.33%	0.00%	3.33%
NY	60.42	-12.42%	-9.88%	1.31%	-20.88%
OH	101.71	-4.63%	1.47%	0.00%	-2.89%
OK	101.07	-5.06%	1.59%	0.00%	-3.19%
OR	80.78	-7.79%	-5.68%	0.00%	-13.30%
PA	87.37	-8.23%	4.04%	0.00%	-3.61%
RI	82.20	-12.70%	1.01%	0.00%	-10.83%
SC	107.62	-0.22%	2.80%	0.00%	2.43%
SD	83.53	-4.93%	-0.78%	0.00%	-5.41%
TN	111.93	-1.48%	2.56%	0.00%	1.06%
TX	69.39	-5.68%	1.33%	-8.14%	-12.07%
UT	45.96	-6.20%	-4.52%	0.00%	-10.40%
VA	100.71	0.14%	22.01%	0.00%	20.81%
VT	98.52	-6.99%	9.58%	0.81%	3.94%
WA	57.91	-12.63%	-8.95%	1.32%	-20.08%
WI	84.42	-7.22%	-5.48%	0.00%	-12.45%
WV	109.15	-4.11%	6.96%	0.00%	2.93%
WY	98.41	-2.77%	9.59%	0.00%	6.66%

Notes: Estimates computed based on the regression results presented in columns 3 and 4 of Table 3. The sum of commercial, casual and Canada/Mexico smuggling does not equal the total presented in the final column due to the non-linear nature of the model.

Delaware raised taxes twice during the sample period: a 10-cent increase in 1991 to 24 cents per pack, and a 31-cent increase in 2003 to 55 cents per pack. The average tax rate of the neighboring states increased from 18.6 cents per pack in 1990 to over 148 cents per pack in 2006. This rapidly increasing tax differential (in magnitude) has led to significant cross-border shopping, as residents of New Jersey, Pennsylvania and Maryland all seek to avoid their own states' high cigarette taxes.

Given our particular interest in the states of Michigan, New Jersey and California, additional discussion of the results in regards to these three states is warranted. As mentioned above, California is estimated to be the top importer of cigarettes. Much of the imported cigarettes are smuggled in from Mexico, accounting for about 10 percent of sales. Commercial smuggling accounts for another 7.4 percent while casual smuggling amounts to nearly 6 percent of sales.

Michigan and New Jersey, as high-tax states, are also net importers of smuggled cigarettes at nearly 16 percent and 12.3 percent of sales, respectively. Casual smuggling across state lines and from Indian reservations accounts for a roughly 6 percent reduction in sales in Michigan while commercial smuggling reduces sales by another 11.6 percent. Michigan is estimated to export roughly 1.2 percent of its sales to Canada, though. The smuggling of cigarettes into New Jersey amounts to 12.3 percent of sales with the primary source of imports being commercially smuggled cigarettes.

Casual smuggling does not appear to be significant in New Jersey on average over the sampling period as the border tax rate differential was relatively close to zero (and positive in some years while negative in others) until recent years. More specifically, New Jersey's tax rate was lower than the average of its neighbors for seven of the 17 years in our sample. However, New Jersey began aggressively raising its cigarette tax in 2003, and the rate now exceeds its neighbors' average by over a dollar per pack.

Table 5 presents the estimated total change in cigarette sales in our three states of interest in response to specified changes in the 2006 tax rates. The estimated sales responses are due solely to changes in smuggling behavior, not to price-induced changes in the quantity demanded. The 2006 tax rates on cigarettes in California, Michigan, and New Jersey were 87, 200, and 240 cents per pack, respectively.

We compute the percent change in the total quantity of cigarettes smuggled in response to an increase or decrease in the 2006 rate by either 25 or 50 cents. Consider a 50-cent increase in each state's tax (one at a time), holding constant all other tax rates in the U.S. Such an increase represents a 57.5 percent increase in the state tax and is estimated to cause a 25.3 percent decline in sales due to the increase in smuggling. The same 50-cent change in Michigan's tax (a 25 percent

increase) is shown to reduce sales by 10.5 percent due to smuggling. Finally, a 50-cent tax increase in New Jersey (a 20.8 percent increase) results in an estimated 18.8 percent decline in sales.

Table 5: Change in Sales Due to Selected Changes in Tax Rates for Selected States

Tax Change (cents)	CALIFORNIA			MICHIGAN			NEW JERSEY		
	% Change in Tax	Change in Sales (x1000 packs)	% Change in Sales	% Change in Tax	Change in Sales (x1000 packs)	% Change in Sales	% Change in Tax	Change in Sales (x1000 packs)	% Change in Sales
-50	-57.5%	289551	32.4%	-25.0%	50973	11.8%	-20.8%	56343	22.6%
-25	-28.7%	135881	15.2%	-12.5%	24755	5.7%	-10.4%	26874	10.8%
2006 Rate	--	--	--	--	--	--	--	--	--
25	28.7%	-120151	-13.4%	12.5%	-23374	-5.4%	10.4%	-24508	-9.8%
50	57.5%	-226394	-25.3%	25.0%	-45443	-10.5%	20.8%	-46857	-18.8%

The above sales responses can be used to compute the tax elasticity due to smuggling activity. The results suggest a tax elasticity of -0.44 for California, -0.42 for Michigan and -0.90 for New Jersey. The estimates for California and Michigan compare favorably to those computed by Lovenheim (2007), who estimated the home state price elasticity of -0.46 for California and -0.22 for Michigan. However, Lovenheim's estimate of New Jersey's home state price elasticity is a positive 0.38. Not only is our estimate negative, as would be expected, but it is nearly 2.5 times as large in magnitude. One reason for the large differences in our results for New Jersey relative to Lovenheim's may revolve around our use of more recent data covering the large tax increases experienced in New Jersey beginning in 2003. As such, one could argue that our results may be more reliable for policy recommendation purposes if for no other reason than our sample is more representative of current tax rates.

A County-Level Analysis of Wholesaler Shipments

In addition to the state-level model estimated above, we wanted to conduct a county-level analysis of cigarette smuggling for the state of Michigan in an effort to better describe the occurrence of casual smuggling. County-level data of this nature is often difficult to obtain. We were fortunate to obtain, from a large Midwest cigarette distributor, monthly counts of cigarettes shipped to retailers located by zip code, which were then summed to the county-level. The sample covers the time period beginning January of 2006 and ending September 2008. We have agreed to withhold the name of the participating distributor for privacy purposes. The use of data from a single wholesaler clearly poses some limitations on the implications of the results. However, we present this model as an additional robustness check of our conclusions regarding the occurrence of casual smuggling.

Slemrod (2007) conducts a similar study of cigarette sales for the state of Michigan covering the sample period November 1991 to September 2006. Data for the Slemrod (2007) study was obtained from the Michigan Department of Treasury. A primary conclusion of the Slemrod paper is that the responsiveness of smuggling to changes in the tax rate are much lower after the imposition of the stamping requirement in Michigan, which took effect in April 1998.

Our sample period limits our abilities to offer results comparable to Slemrod (2007), primarily because the Michigan tax rate is constant at 200 cents per pack over the entire sampling period. However, two of the three bordering states (Wisconsin and Indiana) increased their cigarette tax rates: the Indiana tax rate increased from 55.5 cents per pack to 99.5 cents per pack (a 79 percent increase) in July of 2007 while the Wisconsin tax increase from 77 cents per pack to 177 cents per pack (a 130 percent increase) in January of 2008.

Ohio's tax remained steady at 125 cents per pack over the sample period. Given that Michigan's tax rate exceeds that of each of its bordering states, those Michigan counties along the borders should experience fewer shipments of cigarettes from our distributor as the residents of these counties can easily shop across the border where prices are lower. Furthermore, those Michigan counties along the Indiana and Wisconsin borders would be expected to observe an increase in in-state sales after the two above-mentioned tax increases, since the benefits of cross-border shopping were reduced.

Our regression model for this county-level study resembles a more traditional demand function. We regress the natural log of per capita county shipments against real price (in 2007 dollars), the real tax rates in Indiana and Wisconsin, binary variables for each neighboring state equal to one if the county borders said state, interaction terms between the Wisconsin and Indiana tax rates and the corresponding binary border variables, a binary variable equal to one if the county contains a Canadian border crossing, and two additional binary variables indicating whether the county is within 50 miles of an Indian reservation or military base. Following from Slemrod (2007), we also estimated a specification in which we allow for changes in inventories for the three months leading up to and after the tax changes in Indiana and Wisconsin.

The estimation results of this model can be found in Table 6. Columns 1 and 2 present the results of the specification without allowance for inventory changes while the results of Columns 3 and 4 are those including the inventory variables. Considering the results of Columns 1 and 2, it can be seen that only the Wisconsin tax variable and the Wisconsin border and Canadian border crossing dummy variables are statistically insignificant. While the coefficients of some variables (such as the Ohio border variable) are of the "wrong" sign, the estimation results in regards to the tax variables perform as would be expected.

Table 6: Monthly Wholesale Cigarette Sales: January 2006 - September 2008

Dependent Variable:	Model 1		Model 2	
	[1] Coeff.	[2] Std.Err.	[3] Coeff.	[4] Std.Err.
Natural Log of Per Adult Sales				
Cigarette Price, Cents/Pack (Year 2007 \$)	-0.0195***	0.0036	-0.0198***	0.0037
Wisconsin Cigarette Tax, Cents/Pack (Year 2007 \$)	-0.0010	0.0006	-0.0009	0.0006
Indiana Cigarette Tax, Cents/Pack (Year 2007 \$)	-0.0040***	0.0014	-0.0036**	0.0014
Wisconsin Border County Dummy	0.0984	0.0768	0.1248	0.0836
Indiana Border County Dummy	-1.4878***	0.1848	-1.7119***	0.2130
Ohio Border County Dummy	0.1763***	0.0369	0.1763***	0.0370
Wisconsin Tax x Wisconsin Border Dummy	0.0017***	0.0006	0.0014**	0.0007
Indiana Tax x Indiana Border Dummy	0.0137***	0.0022	0.0162***	0.0025
Canadian Border Crossing Dummy	-0.1403	0.1142	-0.1403	0.1141
Within 50 Miles of Indian Reservation Dummy	0.0877**	0.0342	0.0877**	0.0342
Within 50 Miles of Military Base Dummy	0.2809***	0.0314	0.2809***	0.0315
3 Month Lead to Wisconsin Tax Change			-0.0251	0.0758
Month of Wisconsin Tax Change			-0.0841	0.0618
3 Month Lag to Wisconsin Tax Change			0.1036	0.0750
3 Month Lead to Indiana Tax Change			0.4582***	0.1229
Month of Indiana Tax Change			-0.1197	0.1703
3 Month Lag to Indiana Tax Change			-0.0558	0.1256
Time Trend	0.0132***	0.0036	0.0122***	0.0037
Constant	2.5307***	0.9714	2.5958***	0.9771
R-square	0.0628		0.0644	
Number of Observations	2541.0000		2541.0000	

Notes: Statistical significance of 1%, 5%, and 10% are represented by ***, **, and *, respectively.

Evaluating the model at the point of means (except for the tax rates), we estimate that the July 2007 tax hike in Indiana increased shipments from our participating distributor to Michigan counties along the Indiana border by 53.2 percent, implying a tax elasticity of 0.67. Furthermore, the tax increase in Wisconsin led to an 8 percent increase in shipments to Michigan counties along the Wisconsin border, with a tax elasticity of a mere 0.06.

Much of the lack of response to the tax change in Wisconsin may be due to the low population levels along the Michigan-Wisconsin border. Finally, the results of Columns 3 and 4 suggest that retailers in Michigan counties along the Indiana border expected an increase in sales in response to the Indiana tax hike.

Specifically, in the three months leading up to the Indiana tax hike, shipments from our distributor to retailers in Michigan counties along the Indiana border increase by 58 percent in an effort to increase store inventories needed to support the impending increase in sales after the tax hike in the adjacent state. Such a finding is generally consistent with that of Slemrod (2007) and suggests that the influences of casual smuggling and the responsiveness to tax changes are strong and well understood by retailers.

Appendix B: Prohibition in Michigan and the Avenue de Booze

State and federal law used to prevent the sale of alcohol in Michigan. Currently, state law prevents the sale of cigarettes in Michigan unless the pack displays an expensive tax stamp. In both cases, smugglers have realized significant profits by meeting consumer demand, whether for alcohol or for low-cost cigarettes.

It is not surprising, then, that current cigarette smuggling recalls the era of alcohol Prohibition in the state. Michigan has often been a leader in economic and social experiments in America, and this includes being the first to go “dry.” In a statewide referendum in 1916, the people of Michigan chose to prohibit the sale of alcoholic beverages.

Michigan did not embrace Prohibition all at once. Advocates[†] faced stiff opposition from saloon owners, brewers, other special interests and many residents in the late 19th and early 20th century. This began to change, however, with public sermons against liquor consumption by the high-profile Rev. Billy Sunday. Dry counties began popping up in Michigan starting in 1907 with Van Buren County, according to the Michigan Anti-Saloon League. By 1911, 39 Michigan counties had adopted local prohibitions on alcohol.²¹⁹

The work of churches and the Michigan Anti-Saloon League also played a significant role in turning opinion against saloons, breweries and consumption of “spirits.” The proponents’ language was uncompromising. In January 1912, the Michigan Anti Saloon League’s superintendent wrote:

The Anti-Saloon League of Michigan is commissioned of the church and all the forces of righteousness of the State to wage a ceaseless warfare for the banishment of the saloons and breweries of the state.²²⁰

In the March 11, 1911, edition of *The American Issue*, the Michigan Catholic, a periodical, is quoted as opining:

- “Vote **for** the saloon if you want future generations to be shriveled, bloodless, prematurely decayed creatures;”
- “Vote **for** the saloon if you desire to continually place before the eyes of children a temptation that leads to the other influences;” and
- “Vote **against** the saloon if you wish to build up a race of giant, healthy manhood and glorious womanhood — to add welfare to our country, for the saloon quenches the noble manhood of its **slavery**, and burns out the true womanhood of its victims.” (Emphasis in original.)²²¹

* Hudsonville in Michigan’s Ottawa County repealed its dry law only in November 2007. It was the last community in Michigan to retain such a law, which was removed from the books in hopes of facilitating economic growth. This rationale is ironic, since some dry advocates originally argued that prohibiting saloons and alcohol would improve business productivity. (See “Intemperance: The Lost War Against Liquor,” James Engelmann (The Free Press: 1979), 12-13. Engelmann quotes historian James Timberlake as saying, “[E]conomic developments were conspiring to give the economic argument for temperance a boost.” With the growth of mass production at the turn of the century, a new ethos of scientific and industrial efficiency birthed a cultural argument against inebriation.)

† The city of Temperance in Monroe County is so named for its creation by a series of deed restrictions or “temperance clauses” on land sold by temperance advocates Lewis and Marietta Anstead. These clauses that prohibited the sale or manufacture of intoxicants on land they sold (Source: Michigan Place Names, Walter Romig, Grosse Pointe, 1973. 55. See also “Bedford Township, Monroe County, Michigan: Then and Now,” 2003.)

219 Letter from Michigan Anti-Saloon League Superintendent George W. Morrow to “Dear Friend,” January 29, 1912, Detroit, 1.

220 Ibid.

221 *The American Issue*, Michigan Edition, Vol. VI, No. 5, March 11, 1911. 2

In effect, alcohol was seen as a “gateway drug” that led to stunted growth and poor health.

Michigan Gov. Chase Osborn was particularly opposed to brewery-owned saloons. On Jan. 31, 1912, he declared: “This brewery domination with all of its tentacles is a monstrous hyena in our social system. I have been near enough once to spear it and it squirmed. No greater menace has confronted the country since the days of human slavery.”²²²

Ultimately, public opinion shifted even further, and in 1916, Michigan voters approved a statewide prohibition of the sale of intoxicants, including beer, wine and liquor. The law took effect in 1918.²²³

Many citizens responded by making their own liquor or beer. The grandfather and great grandfather of one of the authors cheerfully undermined prohibition in Detroit by selling from the family’s dry good store much of what a budding distiller needed to brew spirits.

Home production of liquor was difficult, though, and often produced noxious odors and other problems. This left many of the state’s drinkers — “wets” — needing to find a new source of alcohol. That source became Ohio. Toledo is not far from the border of Michigan, and the city became a ready source of every intoxicant for those willing to transport, consume or sell it back into Michigan.²²⁴

By all accounts, there was no shortage of people willing to do so. Before federal prohibition was adopted, so much illegal booze was flowing into the Great Lakes State from Ohio that U.S. 25 — Dixie Highway — in Monroe County earned the nickname “Avenue de Booze.”²²⁵

When national prohibition took effect in 1920, Michigan became a battleground state in government’s attempt to thwart illicit trafficking and consumption of alcohol. Because of the state’s early experience with alcohol prohibition, many in Michigan were already skilled in the production, acquisition and cross-border transport of large quantities of illegal liquor.

Alcohol from Canada arrived in Michigan by every means imaginable — not just planes, trains, automobiles, trucks and boats, but also underwater sleds²²⁶ (Graphic 25) and at least one funeral hearse.²²⁷ During the summer, every sort of marine craft worked the mile of river separating Michigan and Ontario, either hauling whiskey from Canada or trying to prevent it.²²⁸ During the winter, ice skiffs (essentially sailboats mounted on long running blades) plied the frozen portions of the Detroit River.

* Today, Interstate 75 parallels U.S. 25 as it runs north into Michigan. Given the volume of traffic that I-75 carries from the South and the prevalence of smuggling in Michigan, the highway is probably a modern-day “Avenue de Smokes.”

222 Michigan Anti-Saloon League, *The Governor vs. The Liquor Traffic* pamphlet. Detroit, circa 1912.

223 Larry Engelmann, *Intemperance: The Lost War Against Liquor*, (New York: The Free Press, 1979).

224 *Ibid.*, 34.

225 *Ibid.*

226 *Ibid.*, 84.

227 Philip P. Mason, *Rum Running and the Roaring Twenties*, (Wayne State University Press: Detroit, 1995), 62.

228 *Intemperance*, 71-72.

One enterprising mechanic built a split gas tank that could be filled half with gas and half with liquor.²²⁹ Women were known to strap large canisters of alcohol to their legs and then cover them with their dress and full-length coats.²³⁰ The term “bootlegger” was coined to describe those who would conceal alcohol in long boots.

Graphic 25: Cable Used to Pull Underwater Sleds for Smuggling During Prohibition



Source: Detroit Free Press. The sleds were dragged underwater by cables running across the Detroit River from Ontario to Michigan.

When large shipments of alcohol entered Michigan from Canada, they were frequently broken down into smaller parcels and resold. Some went directly to homes or street corners for personal use, while others went to “blind pigs” — any place selling illicit alcohol (Detroit alone was reputed to have 25,000 of them at one time²³¹).

Anything that could conceivably be used to conceal the transport of smaller quantities of alcohol seemingly was. In the book “Rum Running and the Roaring Twenties,” a series of photos actually shows such smuggling devices as:

- a hollowed-out watermelon;
- a “Free Press” smock that hid bottles of liquor;
- hot water bottles;
- an early backpack-pouch for transporting liquor under clothes; and
- cement door stops with an internal flask that would permit a “milk man” to make a “delivery.”²³²

229 Ibid., 34.

230 *Rum Running*, 62.

231 Jenny Nolan, “How Prohibition made Detroit a bootlegger’s dream town,” *The Detroit News*, June 15, 1999, <http://info.detnews.com/redesign/history/story/historytemplate.cfm?id=181> (accessed September 18, 2008). Also, see *Intemperance*. He notes a *News* estimate of between 16,000 and 25,000 blind pigs in the city.

232 *Rum Running*, 62-63.

Graphic 25: A Biplane Smuggling Alcohol on the Ice

Source: *The Detroit News*

Graphic 26: A Modern Plane Smuggling Cigarettes

Source: *Michigan State Police*.²³³

Organized crime played a significant role in the acquisition, transportation and sale of alcohol in the country and in Michigan. The state's notorious "Purple Gang" — a predatory syndicate of bootleggers and hijackers — protected its turf with a vengeance. They are reputed to have killed hundreds of people in bootlegging disputes.

With all of this activity, it's not surprising that Michigan was considered a major smuggling hub. Writing in *The Detroit News* in 1999, News Librarian Jenny Nolan states that more than 75 percent of the alcohol entering the United States during Prohibition came across the Detroit River.²³⁴ In his book "Intemperance: The Lost War Against Liquor," author Larry Engelmann reports that the federal government was dedicating up to 27 percent of its entire Prohibition enforcement budget on fighting illegal alcohol commerce in Michigan.²³⁵

²³³ Theresa Crabb, Michigan State Police, e-mail to Michael LaFaive, November 26, 2002.

²³⁴ "How Prohibition made Detroit a bootlegger's dream town."

²³⁵ *Intemperance*, xiv.

About the Authors

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He has also had a long-term interest in taxation issues — and specifically those surrounding cigarette excise taxes. His graduate school final paper was titled, "The Impact of Cigarette Taxes on Michigan: Empirical and Anecdotal Evidence." Since joining the Mackinac Center in 1995 LaFaive has since authored a number of essays on tobacco taxes and smuggling. In the interests of full disclosure, LaFaive admits to enjoying the occasional cigar.

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