# AN Update - Additional Cigarette Tax Revenue Sources 

For New York State

Prepared for the

New York Association of Convenience Stores

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## Introduction

This report is the latest in a series of updates to a study which was prepared for the FACT (Fair Application of Cigarette Taxes) Alliance back in 2002. The main purpose of that study was to assess the total demand for cigarettes by New York State residents and, in turn, to estimate the number of cartons which were sold by conventional local sources with the appropriate New York State tax stamp and the number of cartons which were purchased via alternative distribution channels by New Yorkers without paying the local excise tax. These alternative marketing channels include: (1) internet, 800 - telephone networks and Native-American reservation store sales serving New York State residents; (2) bootlegged cigarette sales to New Yorkers and (3) cross-border purchases by local residents in adjacent states. An estimate of the total number of cartons sold by NativeAmerican stores within New York State was derived by marking down the total internet, telephone and Native-American reservation purchases by New Yorkers to account for those sales made from businesses in other states, and then, adding back sales by local Native-American stores to customers outside the state.

## New York State Tobacco Tax

The excise tax on cigarettes in New York State was authorized by Article 20 of the state Tax Law in 1939. Under this statue, the Commissioner of Taxation has the authority to make provisions for the sale of tobacco excise tax stamps and may license agents to sell these stamps. Each agent may retain a portion of these tax receipts, not to exceed 5\%, based on a schedule established by the Tax Department.

The State of New York also imposes a tax on other tobacco products not classified as cigarettes. The tobacco products tax is currently imposed at a rate of 96 cents per ounce on stuff products and at a rate of $37 \%$ of the wholesale price for all other non-cigarette tobacco products (cigars, pipe tobacco, chewing tobacco and roll-your-own cigarette tobacco).

The cigarette tax rate has been increased significantly over the last 50 years. The state excise tax rate now stands at $\$ 2.75$ per pack, last changed on June 3, 2008. At that time, the rate was increased $\$ 1.25$ per pack. In addition, New York City imposes an additional tax of $\$ 1.50$ per pack, last changed on April 3, 2002 when the tax rate was increased from 8 cents per pack.

Today, New York State has the highest state cigarette excise tax rate in the nation. There are only 4 other states which have rates above $\$ 2.00$ per pack - New Jersey (\$2.575), Massachusetts (\$2.51), Rhode Island (\$2.46) and Washington State (\$2.025). The national average of all states now stands at $\$ 1.21$ per pack. The major tobacco states have an average rate of $\$ 0.385$, while the remaining states have a mean of $\$ 1.32$. In New York City, the combined state-local tax rate is now $\$ 4.25$ per pack.

Since March 1, 2000, cigarette tax receipts in New York have been divided between General Fund revenues and tax payments made to Health Care Reform Act (HCRA) programs. With the legislative changes in 2008, the share of total receipts earmarked for HCRA was increased to $70.63 \%$ on June 3, up from $61.22 \%$. The State Budget Office currently estimates HCRA receipts for the current fiscal year will be $\$ 874$ million, with the remaining $\$ 387$ million going to the General Fund.

The cigarette industry has always been a favored target for government fiscal authorities. From a public policy view, cigarettes are an attractive product to tax either to close a projected budget deficit or to help defray expenses for public health programs linked to smoking. The demand for cigarettes is very insensitive to the price of the product. If the price of cigarettes increases due to a change in the excise tax rate, the amount of industry sales would not change significantly, assuring the taxing agency a revenue stream roughly equal to the quantity of goods sold before the tax change multiplied by the new excise tax rate.

Heavy reliance on state or local taxation of specific products has created major problems for these government entities. Such fiscal initiatives assume that all firms in the market are equally subject to the provisions of the tax code. In the case of cigarettes, this fiscal strategy has provided the impetus for the development of alternative distribution channels where, in many instances, payment of these excise taxes is avoided. As excise tax rates have climbed in recent years, the market share of these alternative channels has posted significant gains.

Legislative and judicial efforts to curb tax avoidance have met with only limited success. The U.S. Congress passed the Jenkins Act in 1949, requiring cigarette dealers to report all out-of-state sales back to local tax officials. While the Justice Department is the federal agency responsible for enforcement, FBI activity has been primarily limited to cases involving major crimes, smuggling, etc.

In 1992, the U. S. Supreme Court ruled in Quill Corp. vs. North Dakota that states could not require out-of-state vendors to collect sales and use taxes from local buyers and remit those receipts back to the local tax agency. According to the court decision, such a requirement would violate the Commerce Clause of the U.S. Constitution. Businesses which did not have an actual physical presence in a state were exempt from such collecting requirements. Also, the Supreme Court ruled that the use of common carriers did not satisfy the "substantial nexus" conditions.

In 1994, the nation's highest court decided that New York State could legally impose an excise tax on Indian reservation sales to non-Indian customers. Also, the New York State Legislature enacted a law, which took effect March of 2006, requiring the collection of these taxes. Although this law is in place and the collection of these tax receipts was scheduled to begin February 2009, a State Supreme Court judge has issued a temporary injunction against such collections until the Tax Department distributes to the tribes the tax-exemption coupons mandated by the law.

## Cigarette Demand - New York State

Statistical data on the total demand for cigarettes by residents of any given state are not directly available due to statistical limitations. Therefore, a quantitative procedure had to be developed to estimate such data. The following provides a summary description of the estimating process used in the original 2002 study.

The process used a multiple regression technique to construct a total demand function. First, a nationwide demand function was estimated using data from 1975 to 2000. In the current study, that function was re-estimated with more recent data to obtain nationwide estimates of an income elasticity (consumer sensitivity to changes in income) and a price elasticity (buyer sensitivity to changes in price) and to validate the stability of those elasticities over different time periods. The statistical results continue to be strong. The estimated income elasticity is in the range of 0.60 to 0.65 and the price elasticity is in the range of -0.35 to -0.40 . Both elasticities have the correct sign and relative magnitude based on other economic studies. The price elasticity is negative, reflecting the normal inverse relationship that exists between price and quantity sold. The numerical magnitude is consistent with the price elasticity being "inelastic", suggesting that buyers have a relatively low sensitivity to the price of the product. Naturally, the price elasticity for any individual brand or retail outlet would be higher due to the potential competition from other suppliers. This latter concept forms the foundation for the development of alternative distribution channels.

With these national characteristics identified, a demand function for cigarettes was estimated using data for New York State. That function was recently updated using the latest regional data available. The results were statistically identical with the earlier results in 2002 and still indicate that the buyer characteristics of New York State residents are quite similar to those across the rest of the nation.

Using this function for New Yorkers, the total demand for cigarettes was estimated at 124 million cartons in Fiscal Year (FY) 2001-02, 116 million cartons in FY 2002-03 and 113 million cartons in FY 2003-04. The sharp drop in total cigarette smoking between FY 2001-02 and FY 2003-04 can be attributed to significantly higher prices due to large increases in excise taxes and the success of anti-smoking efforts of the day.

The significant decline in the total demand for cigarettes by New Yorkers reflects the effects of the estimated price elasticity of demand in conjunction with the product price increase stemming from the excise tax changes. At the beginning of FY 2002-03, New York State increased the excise tax rate from $\$ 11.10$ per carton to $\$ 15.00$ per carton, a $35 \%$ increase. In addition, New York City raised its tax rate from 80 cents per carton to $\$ 15.00$ per carton on July 2, 2002. Accounting for both changes on a weighted basis, the effective price hike was in the $20 \%-25 \%$ range. With an estimated price elasticity of 0.35 to -0.40 , the expected loss of sales would be roughly $9.0 \%$.

The estimated total demand for cigarettes remained relatively stable from FY 2003-04 through FY 2007-08. In response to the latest excise tax increase, the demand for cigarettes is once again on a downward trend in the current fiscal year. On June 3, 2008, the excise tax was increased from $\$ 15.00$ per carton to $\$ 27.50$, an $83 \%$ increase. The average price of cigarettes prior to the tax change was $\$ 5.82$ per pack statewide and $\$ 8.00$ in New York City. Using a weighted average of these prices, the tax rate increase implies a product price hike in the $18 \%-22 \%$ range. Given the price elasticity, this price change would translate into an expected decline in sales volume of approximately $8 \%$. With the timing of the rate change, the majority of the impact would be felt in the current fiscal year, with a small residual effect in FY 2009-10.

The volume of cigarette sales in New York State made through conventional distribution channels can be derived from the state's tobacco tax receipts. The following table contains historical data on total tobacco tax receipts and its split between cigarette taxes and other tobacco product tax receipts.

Table 1

## Total Tobacco Tax Receipts (millions of \$)

| Fiscal Year | Total <br> Receipts | Cigarette <br> Receipts | Other <br> Receipts |
| :---: | :---: | :---: | :---: |
| $2000-01$ | 1024 | 999 | 25 |
| $2001-02$ | 1005 | 980 | 25 |
| $2002-03$ | 1121 | 1079 | 42 |
| $2003-04$ | 1013 | 969 | 44 |
| $2004-05$ | 979 | 936 | 43 |
| $2005-06$ | 974 | 932 | 42 |
| $2006-07$ | 985 | 938 | 47 |
| $2007-08$ | 976 | 926 | 50 |
| $2008-09$ (est.) | 1311 | 1261 | 50 |

Source: New York State Division of the Budget

Using the fiscal year tax data presented in Table 1 along with the statutory excise tax rate on cigarettes per carton for each fiscal period, the volume of taxed cigarette sales can be estimated. The table below contains this historical information for fiscal years 2000-01 through 2008-09.

## Table 2

## Volume of Taxed Cigarette Sales

|  | Tax <br> Receipts <br> (mil. \$) | Tax <br> Rate <br> $(\$ /$ carton $)$ | Taxed <br> Cartons <br> (mil) |
| :---: | :---: | :---: | :---: |
| $2000-01$ | 999 | 11.10 | 90.0 |
| $2001-02$ | 980 | 11.10 | 88.3 |
| $2002-03$ | 1079 | 14.68 | 73.5 |
| $2003-04$ | 969 | 15.00 | 64.6 |
| $2004-05$ | 936 | 15.00 | 62.4 |
| $2005-06$ | 932 | 15.00 | 62.1 |
| $2006-07$ | 938 | 15.00 | 62.5 |
| $2007-08$ | 926 | 15.00 | 61.7 |
| $2008-09$ (est.) | 1261 | 25.42 | 49.6 |

Source: New York State Division of the Budget
Alternative channel sales to New Yorkers can be estimated by the difference between the estimated total demand for cigarettes and the volume of taxed cigarette sales in the state. The share of alternative channel activity is highly sensitive to the price differentials across vendors in a given market. The estimated share in FY 2001-02 was approximately $29 \%$. The sharp rise in local excise taxes early in FY 2002-03, which gave alternative channel vendors further price advantages, caused the share to rise to approximately $43 \%$ by FY 2003-04. The 2008 tax rate increase is estimated to increase the market share of alternative channel activity to $53 \%$ in FY 2008-09, with a further uptick expected in the
upcoming fiscal year. Table 3 provides a recent history of alternative channel sales and the relative share of these untaxed cartons in the New York State cigarette market.

Table 3

## Demand for Cigarettes in New York State (millions of cartons)

| Fiscal Year | Total <br> Demand | Taxed <br> Sales | Untaxed <br> Sales | Untaxed <br> Share (\%) |
| :--- | :---: | :---: | :---: | :---: |
| $2001-02$ | 124 | 88.3 | 35.7 | 29.0 |
| $2002-03$ | 116 | 73.5 | 42.5 | 37.0 |
| $2003-04$ | 113 | 64.6 | 48.4 | 43.0 |
| $2004-05$ | 113 | 62.4 | 50.6 | 45.0 |
| $2005-06$ | 113 | 62.1 | 50.9 | 45.0 |
| $2006-07$ | 113 | 62.5 | 50.5 | 45.0 |
| $2007-08$ | 113 | 61.7 | 51.3 | 45.0 |
| $2008-09$ | 105 | 49.6 | 55.4 | 53.0 |

Source: New York State Division of the Budget and estimates of untaxed alternative channel sales based on calculations by the author

Using data from the original 2002 study and updating the analysis with the latest information, a profile of alternative channel sales can be constructed. These sales can be broken down into three major groups. The largest segment consists of internet, 800 telephone networks and Native-American reservation store sales. The e-commerce activity has continued to grow sharply in recent years, with Native-American vendors playing a significant role. Bootlegged sales are also a major concern for New York State. These sales are influenced by the ease of transporting illegal cigarettes up I-95 from Virginia and other low-cost tobacco states, plus the involvement of organized crime figures in the New York City metropolitan area. Finally, cross-border sales activity is driven primarily by tax rate differentials between adjacent states. With less dispersion of
excise tax rates, these channel sales now appear to be less of a problem for New York State than in the past. Table 4 contains an estimate of activity in these alternative channels.

## Table 4

## Alternative Channel Untaxed Sales to New Yorkers (millions of cartons)

|  | Total <br> Untaxed <br> Sales | Tribal/ <br> Internet <br> Sales | Bootlegged <br> Sales | Cross-border <br> Sales |
| :---: | :---: | :---: | :---: | :---: |
| 2001-02 | 35.7 | 26.4 | 7.0 | 2.3 |
| $2002-03$ | 42.5 | 31.6 | 9.0 | 1.9 |
| $2003-04$ | 48.4 | 36.6 | 10.0 | 1.8 |
| $2004-05$ | 50.6 | 36.9 | 12.0 | 1.7 |
| $2005-06$ | 50.9 | 37.3 | 12.0 | 1.6 |
| $2006-07$ | 50.5 | 37.0 | 12.0 | 1.5 |
| $2007-08$ | 51.3 | 37.9 | 12.0 | 1.4 |
| $2008-09$ | 55.4 | 41.0 | 13.0 | 1.4 |

Source: Estimates of alternative channel sales by type are based on author's research

## Economic and Fiscal Impacts

Economists normally embrace the entry of new firms into an industry. With more stores, markets tend to become more competitive, lowering prices for consumers and fostering the need for efficiency gains by industry retailers. However, such analysis presumes the existence of "fair" competition among sellers in the market. The vast majority of alternative distribution channels in the cigarette industry operate due to "unfair" competitive forces. Bootlegged cigarettes and sales from Native-American stores are two prime examples. The supply of bootlegged cigarettes in the New York metropolitan
region comes either from purchases made in low-cost tobacco states and trucked into local markets or from hijacking activity. For the most part, these activities are run by either elements of organized crime or terrorist-related organizations. The largest share of alternative channels sales are accounted for by Native-American stores.

These establishments have long held that they are neither subject to tobacco excise taxes nor sales taxes despite court rulings to the contrary. The problem has worsened in recent years as state taxing authorities have looked more and more to increase excise tax rates on tobacco products to help eradicate fiscal deficits.

Data from a 2004 New York Adult Tobacco Survey (ATS) provide a more comprehensive picture of the state's cigarette market. Approximately $75 \%$ of all smokers in New York State purchased cigarettes at least once in the past year from convenience stores or gasoline stations - nearly $60 \%$ of these smokers regularly or frequently made purchases from these retail establishments. These sales help support the vitality of the small business community, the engine of New York State employment growth in recent years. The proportion of local smokers which purchased cigarettes from low-tax or untaxed sources ranged from $57 \%$ for occasional buyers to $37 \%$ for more regular customers. The largest share of these purchases came from Native-American stores.

The ATS results provided important information on the geographic pattern of low-tax or untaxed cigarettes purchased within the State. The study segmented the market into four geographic regions: (1) western; (2) central; (3) capital and (4) metropolitan. The percentage of all smokers making these alternative channel purchases ranged from 79\% in western New York to $49 \%$ in the metropolitan region, with a $70 \%$ share in central New York and $53 \%$ in the capital region. The attractiveness of Native-American stores reflects the price differentials facing the buyer. In 2004, the difference in price between convenience stores and Native-American stores was nearly $\$ 3.00$ per pack for New York City residents and slightly more than $\$ 2.00$ for the remainder of the state. The price advantage and ease of buying tobacco products from Native-American stores have helped undermine the economic landscape in many of the most economically challenged areas in the State of New York.

On the fiscal side, the New York State tax code can best be described as complex. The State reorganized its accounting system in 1981 to divide its revenues into four major funds. They are: (1) the General Fund which accounts for the vast majority of tax receipts; (2) the Special Revenue Fund which covers federal grants and special dedicated taxes and user fees; (3) the Capital Projects Fund which handles capital outlays for public infrastructure projects; and (4) the Debt Service Fund which provides the monies to pay the principal and interest on state debt obligations. As reported above, the tobacco tax receipts flow into two separate accounts. Currently, approximately $71 \%$ of the receipts are earmarked for the HCRA Fund, with the remaining $29 \%$ going to the General Fund.

In Fiscal Year 2008-09, cigarette excise tax receipts are estimated to be $\$ 1.261$ billion. If all alternative channel sales to New Yorkers had been subject to the prevailing excise tax rate, the additional 55.4 million cartons sold would have generated approximately $\$ 1.4$
billion in new tax receipts. The HCRA Fund would have received an added $\$ 976$ million to help fund healthcare projects and the General Fund receipts would have been $\$ 432$ million larger. In addition, there would be approximately another 13 million cartons subject to the New York State excise tax accounting for the volume of cigarette sales by local alternative channel retailers shipping to out-of-state customers. These sales would add another $\$ 325$ million to cigarette tax receipts.

The reality of the situation is, however, that some of these lost tax receipts would be very difficult to collect or, in some cases, tax compliance would prove far too costly. Crossborder sales and bootlegged cigarettes are prime examples of these problems. On the other hand, the mechanism is in place to collect excise taxes on tobacco sales made at Native-American reservation stores within the state.

An estimate of local Native-American sales was derived by reducing the purchases of cigarettes by New Yorkers using the internet, 800 - telephone networks or reservation stores handled by out-of state vendors and then adding back the out-of-state customer purchases processed through New York State reservation stores. The estimation procedure was calibrated using actual data on local reservation sales for FY 2001-02. In 2003, a newspaper reporter filed a request for the release of these data and the information obtained from state tax officials appeared in an article written for the Syracuse Post-Standard in December of that year. As reported in the newspaper, the actual volume of Native-American sales was 28 million in FY 2001-02. Updating that statistic to reflect market developments in the intervening years, an estimate of reservation sales in New York State would be in the range of 40.0 million to 42.5 million cartons for FY 2008-09. With an average excise tax rate of $\$ 25.42$ per carton for the current fiscal year, these volumes would imply additional cigarettes tax receipts of $\$ 970$ million to $\$ 1$ billion after adjusting for lost of business due to higher retail prices stemming from newly imposed excise taxes on Native-American stores.

New York imposes a sales tax of $4 \%$ on all retail activity, rental contracts, leasing agreements and any exchange of goods, excluding certain exempted items. For the same cost efficiency reasons as discussed above, new sales tax revenue sources should most likely be limited to purchases made from local Native-American stores. However, an adjustment must be made to exclude sales to out-of-state customers whose purchases are not subject to the state sales tax. For FY 2008-09, the volume of local reservation sales to New Yorkers is in the range of 22 million to 24 million cartons. Applying the $4 \%$ sales tax to an average sale price of approximately $\$ 55$ per carton and making the adjustment for lost sales due to higher prices at the reservation stores would yield an additional $\$ 50$ million in General Fund receipts.

## Summary

Alternative channels for cigarette sales have become a major problem for New York State. Besides the fiscal impacts, these outlets have hindered the economic growth prospects in the state by undermining the strength of the small business community. If all the alternative channel cigarette sales were properly taxed, the additional cigarette tax
revenue would exceed $\$ 1.7$ billion. For pragmatic reasons, the state tax officials should focus their attention on the Native-American stores within the state where there is a clear legislative mandate and favorable judicial reviews to support a new tax collection initiative. New tax revenues (including sales tax receipts) from the taxation of NativeAmerican retail sales of cigarettes to non-tribal customers would be in the vicinity of $\$ 1$ billion. These new revenue sources would help close the projected budget deficit of $\$ 13.7$ billion in the upcoming fiscal year.

