

TO: Tobacco Control Legal Consortium

FROM: Daniel Morris, MS, PhD, Consultant

SUBJECT: Tobacco Sold in Minnesota, 2011

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SUMMARY

Although cigarette sales in the U.S. have declined over the last 50 years,¹ sales of other tobacco products, including emerging products such as snus and small cigars, have risen. The following sales information compiled for one state, Minnesota, estimates the extent to which consumers are purchasing a variety of tobacco products. This information was compiled by Daniel Morris, MS, PhD, as an estimate of the amount of tobacco products sold in the state of Minnesota in 2011. Dr. Morris is a scientist who studies tobacco sales trends.

The following are estimates of tobacco products sold in Minnesota in 2011:

- 5.47 billion Cigarettes
- 100,000 lbs. Roll-your-own (RYO) cigarette tobacco (enough for about 50 million cigarettes)
- 580,000 lbs. "Dual purpose" pipe tobacco (enough for about 285 million cigarettes)

- 245 million Large cigars and cigarillos
- 16 million Cigarette-sized cigars
- 7 million Premium cigars

- 2.2 million lbs. Moist snuff/dip tobacco
- 530,000 lbs. Loose leaf chewing tobacco
- 19,000 lbs. Plug and twist chewing tobacco
- 27,000 lbs. Snus

- 78,000 lbs. Pipe tobacco and hookah tobacco

- 35,000 lbs. Scotch/Dry snuff

CALCULATION DETAILS

The way Minnesota and many other states collect taxes on non-cigarette tobacco products (other tobacco products or OTP) makes it impossible to describe consumption from revenue data alone. The above estimates are based on national tobacco sales data collected by the Alcohol and Tobacco Tax and Trade Bureau (TTB) and the Federal Trade Commission (FTC) and state-specific tobacco use data from the National Adult Tobacco Survey (NATS) and *The Tax Burden on Tobacco*, Volume 46.

I started with 2011 data from TTB on domestic and imported tobacco products taxed for sale in the United States: numbers of cigarettes and cigars and pounds of snuff, chewing tobacco, pipe tobacco, and RYO.² State-specific cigarette sales data for 2011 came from *The Tax Burden on Tobacco*.³

I used state-specific tobacco use prevalence estimates from the 2009-2010 NATS.⁴ The NATS asks respondents if they have ever used chew/dip tobacco, pipe tobacco, snus, water pipes, and cigars. There are no questions on the NATS regarding current use of these products, so I assumed the lifetime use estimates were a good proxy.

I combined NATS tobacco use prevalence estimates with 2011 Census data on the number of adults ages 18-85 living in each state to yield the number of adults in each state using each type of product. Adding these numbers yielded national totals. I divided the number of users in each state by the national total for an estimate of the percent of national sales of each product that took place in the state. I multiplied these percentages with national sales data from TTB to yield the amount of each product consumed in each state. In these calculations, I assume average consumption by users of each product type is consistent across the country, so, for example, cigar smokers in Minnesota smoke about as much as cigar smokers in any other state.

I split up TTB's snuff category into moist snuff, dry snuff, and snus using FTC data on smokeless tobacco product sales.⁵ I divided the pounds sold of each product in 2010 by the sum total of the three products to get a breakdown of the snuff category. Then I applied that breakdown to the TTB data to estimate how much moist snuff, dry snuff, and snus were sold. I used the same methods to separate the chewing tobacco category into loose leaf chewing tobacco and plug and twist chewing tobacco.

The first three years of snus sales reported by FTC show production increasing rapidly: 170,000 lbs. in 2008, 483,000 lbs. in 2009, and 819,000 lbs. in 2010. The tobacco industry is investing heavily in marketing snus (\$222 million in marketing expenditures from 2008-2010 to sell \$141 million of product), so 2011 production is surely greater than that in 2010. However, I chose not to project 2011 sales and instead used the 2010 snus data for my estimates. This choice yields snus sales estimates that are conservative, but probably still within the rounding error for overall moist snuff sales estimates.

I did not estimate consumption of new dissolvable tobacco products, some of which identify as dry snuff (Ariva, Stonewall) and some as moist snuff (Camel Dissolvables). Neither TTB nor FTC report dissolvable sales data.

Most of the tobacco sold as pipe tobacco today is actually used for RYO cigarettes. I looked at trends in pipe tobacco sales prior to April 2009 (when the federal tobacco tax rates changed, prompting manufacturers to relabel RYO as pipe tobacco) to establish a baseline. Then I subtracted the baseline amount from the amount of tobacco taxed as pipe tobacco in 2011 to estimate the amount of “dual purpose” pipe tobacco used for cigarettes nationally. I think this calculation is legitimate because pipe tobacco consumption was relatively stable in the years before the tax change.

According to *The Tax Burden on Tobacco*, about 1.7% of U.S. cigarette sales take place in Minnesota. I applied that same percentage to national consumption of RYO and “dual purpose” pipe tobacco to estimate the quantity of those products sold in the state. I used similar methods in a recent study estimating revenue losses from selling RYO tobacco as pipe tobacco.⁶ I did not make an additional adjustment for shisha, which is also taxed as pipe tobacco and has grown in popularity. Hookahs are pipes that filter smoke through water, so shisha, the tobacco smoked in hookahs, is a variety of pipe tobacco. I know of no reliable source of information on shisha sales, or what percentage of pipe tobacco sold is shisha. Therefore, I kept shisha and traditional pipe tobacco combined into a single category for this report. I averaged the NATS pipe and water pipe prevalence estimates for these calculations.

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¹ See Karen C. Sokol, *Smoking Abroad and Smokeless at Home: Holding the Tobacco Industry Accountable in a New Era*, 13 N.Y.U. J. LEGIS. & PUB. POL’Y 81, 108, 121 (2010).

² ALCOHOL AND TOBACCO TAX AND TRADE BUREAU, STATISTICAL REPORT – TOBACCO (2011), available at <http://ttb.gov/statistics/2011/201112tobacco.pdf>.

³ ORZECZOWSKI AND WALKER, THE TAX BURDEN ON TOBACCO, HISTORICAL COMPILATION, Vol. 46 (2011).

⁴ Unpublished 2009-2010 National Adult Tobacco Survey estimates (on file with Xin Xu, Senior Economist with the Centers for Disease Control and Prevention's Office on Smoking and Health).

⁵ FED. TRADE COMM’N, CIGARETTE REPORT FOR 2009 AND 2010 (2012), available at <http://www.ftc.gov/os/2012/09/120921cigarettereport.pdf>; FED. TRADE COMM’N, SMOKELESS TOBACCO REPORT FOR 2009 AND 2010 (2012), available at <http://www.ftc.gov/os/2012/09/120921tobaccoreport.pdf>.

⁶ Daniel Morris & Michael Tynan, *Fiscal and Policy Implications of Selling Pipe Tobacco for Roll-Your-Own Cigarettes in the United States*, 7 PLoS ONE 5, e36487 (2012).