



BOARD OF EQUALIZATION
REVENUE ESTIMATE
CIGARETTE AND TOBACCO PRODUCTS TAX EVASION

Summary

We estimate that cigarette excise tax revenue evasion was \$182 million in fiscal year 2005-06. This estimate is comprised of \$57 million in casual evasion by consumers and \$125 million by retailers who purchase and distribute untaxed cigarettes to consumers.¹ We estimate excise tax revenue losses from sales of tobacco products to be \$94 million, comprised of \$7 million in casual evasion by consumers and \$87 million by retailers.²

Background, Methodology, and Assumptions

Cigarettes

Estimated Consumption. We developed an econometric model and used the results to estimate total California cigarette consumption and evasion. The methodology and calculations are provided in a separate document, *Estimates of California Cigarette Excise Tax Revenue Losses*. These estimates were made for fiscal year 2005-06 at a tax rate of \$0.87 per pack. The derivation of consumer and retailer portions of evasion is shown in Table 1.

As shown in Table 1, estimated civilian California cigarette consumption was 1,399 million packs in fiscal year 2005-06. This figure is comprised of tax paid distributions of 1,190 million packs plus estimated total evasion of 209 million packs.³

Casual Cigarette Tax Evasion by Consumers. Casual cigarette tax evasion by consumers includes Internet purchases, mail order purchases, and cigarettes bought in other states or in other countries but consumed in California. We estimated the percentage of untaxed cigarette purchases by consumers from all their various sources and applied this percentage to estimated consumption of 1,399 million packs.

We believe that casual evasion by consumers is 5.0 percent of total consumption (Line 2 of Table 1). This estimate is based on sources of purchases reported in the 1999 and 2002

¹ For purposes of this discussion, the term “untaxed” means cigarettes without California cigarette excise tax stamps. Cigarettes with taxes paid in low-tax states such as South Carolina, but consumed in California would be considered untaxed cigarettes.

² As used here, the term “tobacco products” refers to all tobacco products except cigarettes. Examples of such products include chewing tobacco, snuff, cigars, pipe tobacco, and roll-your-own cigarette tobacco.

³ Tax exempt cigarette sales of 19 million packs, primarily made at military bases, are excluded.

surveys contracted by the Department of Health Services (DHS) and trends in Internet sales since 2002.⁴ We assume that Internet purchases are responsible for 2 percent of the 5 percent and the remaining 3 percent are traditional mail order purchases, telephone orders, or other purchases made across state lines. Multiplying 1,399 million packs (Line 1) by 5.0 percent (Line 2) yields a result of 70 million packs having an excise tax value of \$61 million (Line 3).

Table 1			
Estimates of Cigarette Tax Revenue Losses From Consumers and Retailers			
\$0.87 Per Pack Excise Tax Rate			
Row Number		Cigarette Sales and Related Information	Estimated Cigarette Excise Tax Revenues (\$ Millions)
1	Estimated Cigarette Consumption (Tax-Paid Distributions Plus Estimated Evasion, Millions of Packs, Fiscal Year 2005-06)	1,399	
<i>Losses From Consumers</i>			
2	Estimated Percentage of All Out-of State Purchases by Consumers (Dept. of Health Services Survey) ^{a/}	5.0%	
3	Estimated Out of state Sales by Consumers (Line 1 x Line 2, Millions)	70	\$61
4	Estimated Gains From the Board's Consumer Out-of-State Purchases Compliance Improvement Program, Millions	5	\$4
5	Consumer Evasion, Millions (Line 3 – Line 4)	65	\$57
<i>Losses From Retailers</i>			
6	Estimated Total Annual Untaxed Cigarettes Sold (Line 7 – Line 5)	144	\$125
7	Total Evasion, Millions ^{b/}	209	\$182

a/ Out of state purchases include those from all untaxed out of state sources, including the Internet, mail order, and cross border sales. Cigarette purchases from military bases are excluded.

b/ Source: Board of Equalization Research and Statistics Section, *Estimates of California Cigarette Excise Tax Revenue Losses*

2006 BOE Compliance Improvements Reduce Evasion by \$4 Million. In late 2006 the Board of Equalization Excise Taxes Division began a program to collect state excise and use taxes from California consumers who have purchased untaxed cigarettes for their own use from out-of-state retailers. Based on data from the Excise Taxes Division, we estimate that compliance improvements resulting from this program will reduce cigarette excise tax evasion by about 5 million packs per year, having an excise tax value of \$4 million, as shown on Line 4 of Table 1. Subtracting the Line 4 figures from the Line 3 figures yields the results shown in Line 5, consumer cigarette evasion estimated at 65 million packs with an excise tax value of \$57 million.

⁴ *The California Tobacco Control Program: A Decade of Progress, Results from the California Tobacco Survey: 1990-1999*, December 26, 2001; and *Tobacco Control Successes in California: A Focus on Young People, Results from the California Tobacco Surveys, 1990-2002*, October 2003. California Department of Health Services, Tobacco Control Section. Web site: <http://ssdc.ucsd.edu/tobacco/>

Cigarette Tax Evasion by Retailers. California cigarette tax evasion by retailers is a far larger revenue problem compared to casual cigarette tax evasion by consumers. Evasion by retailers is organized or systematic evasion, primarily by retailers who knowingly purchase contraband cigarettes. Consumers who purchase these contraband cigarettes often do so unwittingly. They may believe they are paying all excise taxes due.

As shown in Line 7 of Table 1, total evasion is estimated to be 209 million packs with an excise tax value of \$182 million. If we subtract consumer evasion of 65 million packs (\$57 million in excise tax revenues, Line 5 of Table 1), this leaves implied retailer evasion of 144 million packs, valued at \$125 million in cigarette excise taxes.

Tobacco Products

We estimate excise tax revenue losses from sales of tobacco products to be \$94 million, comprised of about \$7 million from out-of-state consumer purchases and \$87 million by retailers. Accurately estimating excise taxes evasion for tobacco products is more difficult than for cigarettes. Several kinds of products are involved, and we have little California data compared to what are available for cigarettes. Consequently, we used a different estimation procedure for tobacco products than we did for cigarettes.

In estimating excise tax evasion for tobacco products we relied heavily on U.S. Census data for individual retail industries. We adjusted the Census data to reflect the likelihood of lower per capita California tobacco products consumption by assuming California's share of U.S. cigarette consumption. Our basic procedure was to estimate California tobacco products sales using taxable sales data and U.S. Census data (adjusted to reflect California) and compare these estimates to sales implied by excise tax records. The difference in the two figures provides an estimate of evasion.

We estimated tobacco products sales for retail industries for which we had U.S. Census data. We adjusted each retail industry for California except for cigar shops and cigarette shops. The U.S. Census Bureau has data for cigarette sales and tobacco products sales. Using these data, we determined that about 8 percent of cigarette and tobacco products sales are tobacco products. The U.S. Census Bureau "product lines" reports for retail sales indicate that in 2002 retail sales of cigarettes and tobacco products ranged from about 1 percent of all sales for food stores to 8.9 percent of all sales for gas stations. (We adjusted this percentage to 6.0 percent for 2005 by assuming that the increase in gas station sales from 2002 to 2005 was all caused by higher gasoline prices.) Industry survey data indicates that about 58 percent of sales by cigar shops are tobacco products.⁵

We applied these percentages to Board of Equalization 2005 taxable sales by industry. We adjusted food and drug store calculations to reflect the relatively large proportions of sales of these industries that are exempt from taxable sales. After we calculated estimates of retail tobacco products sales, we adjusted them to estimate wholesale sales by applying margin percentage factors available for specific retail industries in a report published by the U.S. Bureau of Economic Analysis.

⁵ Source: *Smokeshop Magazine 2005 Industry Report*, <http://www.smokeshopmag.com/>.

The results of these calculations for each industry are shown in Table 2. As shown in Column 9 of Table 2, we estimate tobacco products excise tax liabilities of \$140 million for all industries selling tobacco products. This assumes the fiscal year 2007-08 tobacco products tax rate of 45.13 percent. Tobacco products sales based on 2006 excise tax records imply excise tax liabilities of \$53 million, leaving a difference of \$87 million. If we assume that consumers purchase 5 percent of tobacco products directly from out-of-state vendors (the same assumption as for cigarettes) this implies an additional \$7 million in consumer evasion. Therefore, total excise tax evasion for tobacco products is \$94 million.

Table 2										
Estimated Tobacco Products Excise Tax Evasion Revenues										
Fiscal Year 2007-08 Tobacco Products Tax Rate: 45.13%										
Retail Industry	Closest North American Industry Classification System (NAICS) Code	2005 California Taxable Sales (\$ Millions)	U.S. Percent Cigarette and Tobacco Products Sales ^{1/}	U.S. Tobacco Products Percentage of Cigarettes and Tobacco Products ^{2/}	California-Adjusted Tobacco Products Percent of Sales ^{3/}	Estimated California Retail Sales of Tobacco Products [\$ Millions, Column (1) x Column (5)]	Estimated Retail Markup Factor ^{4/}	Estimated California Wholesale Sales of Tobacco Products (\$ Millions)	Estimated Tobacco Products Revenues (\$ Millions)	
<i>Column Number</i>	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>	<i>(7)</i>	<i>(8)</i>	<i>(9)</i>	
Food Stores	445	\$21,128	2.90%	7.76%	0.37%	\$77	1.31	\$59	\$27	
Liquor Stores	4453	2,511	4.40%	7.76%	0.19%	\$5	1.32	\$4	\$2	
Drug Stores	44611	6,199	1.00%	7.76%	0.14%	\$8	1.27	\$7	\$3	
General Merchandise Stores	452	50,588	1.60%	7.76%	0.07%	\$34	1.35	\$25	\$11	
Service Stations	447	38,567	5.96%	7.76%	0.25%	\$98	1.32	\$74	\$33	
Cigar Shops ^{5/}	453991	300	n.a.	58.29%	58.29%	\$175	1.27	\$138	\$62	
Cigarette Shops ^{5/}	453991	56	n.a.	7.76%	7.76%	\$4	1.27	\$3	\$2	
Total Estimated Wholesale Sales and Excise Tax Liabilities								\$310	\$140	
Wholesale Sales and Excise Tax Liabilities Derived From Board of Equalization Records ^{6/}								<u>\$118</u>	<u>\$53</u>	
Difference -- Implied Industry Evasion Estimate								\$192	\$87	
Estimated Consumer Evasion From Out-of-State Purchases (5% of Total) ^{7/}									\$7	
Estimated Industry and Consumer Tobacco Products Excise Tax Evasion										\$94
Footnotes:										
1	Source: 2002 Economic Census, "Product Lines," U.S. Census Bureau. The Census Bureau product lines percentage sales for service stations (8.9%) was adjusted to 5.96% by assuming all taxable sales growth from 2002 to 2005 was gasoline sales.									
2	Source: 2007 U.S. Statistical Abstract, U.S. Census Bureau.									
3	Adjusted for California by multiplying by the ratio of California's share of U.S. cigarette sales to California's share of U.S. population. Source of cigarette shares: <i>The Tax Burden on Tobacco: 2006, Orzechowski and Walker.</i>									
4	Source: <i>A Computational Routine for Disaggregating Industry Margin Data to Estimate Product Margin</i> , Matthew D. Adkinson, working paper, (BEA WP2003-02), Fall 2003, U.S. Bureau of Economic Analysis.									
5	Source: Board of Equalization records for Industry 26, "Tobacco Shops." Cigar shops broken out from cigarette shops based on names of businesses.									
6	Source: "Big Return," report run on 5/8/07, Board of Equalization Excise Taxes Division.									
7	Based on California Department of Health Services surveys and trends. Consumers of tobacco products are assumed to purchase the same percentages of products from out-of-state sources as cigarette smokers.									
Note: Some numbers in the table may not match calculated figures due to rounding.										

Revenue Summary

Excise tax evasion estimates for cigarettes and tobacco products are summarized in Table 3.

Table 3			
Summary of Cigarette and Tobacco Products Excise Tax Evasion Estimates			
(Millions of Dollars)			
	Consumers	Retailers	Total
Cigarettes	57	125	\$182
Tobacco Products	7	87	\$94
Totals	\$64	\$212	\$276

Preparation

This revenue estimate was prepared by Joe Fitz, Research and Statistics Section. For additional information, please contact Mr. Fitz at (916) 323-3802.

Current as of June 27, 2007.

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